

2.2 Biological Resources

Final EIR Introduction

This section has been changed subsequent to the public review of the February 2005 Draft EIR and the April 2008 Revised Draft EIR as follows:

1. Clarification that certain impacts associated with the Applicant's Preferred Project would be avoided with implementation of Reduced Project Alternative I.
2. Clarification that the project site is not located within a Biological Resource Core Area.
3. Updated biology surveys were conducted in 2009 which verified the existing biological conditions.
4. Explanation that the impacts associated with the Applicant's Preferred Project do not account for the expanded fuel modification zones required by the FPP as the Applicant's Preferred Project will not be carried forward to the decision makers. The impacts associated with expanded fuel modification zones were assessed only for Reduced Project Alternatives I and II.
5. The section was annotated to clarify the vegetation impacts and associated mitigation requirements for Reduced Project Alternative I.
6. The Conclusions section was expanded to provide more explanation as to how impacts will be mitigated to a level less than significant.

As explained in the April 2008 Revised Draft EIR, Section 2.2 Biological Resources ~~has been~~ was revised to discuss the general biological survey that was conducted in August 2009 and to reflect the County's recently amended Resource Protection Ordinance. The amended RPO language affects primarily the discussion and analysis of wetlands on-site. The total area of County jurisdictional wetlands on-site has decreased as a result of the 2007 changes to the definition of an RPO wetland. On-site drainages were resurveyed by Merkel & Associates in 2007. Impacted wetland acreages were modified based on the change in characterization of wetlands on-site as a result of the amended RPO. The discussion of Wildlife Corridors was amended in responses to public comments on the DEIR. Impacted upland acreages were modified based on the increased fuel management zone requirements. The increased fuel management requirements are recommended in the Fire Protection Plan (see Section 2.3 Hazards and Hazardous Materials). It should be noted that the change in the impact acreages, as a result of expanded fire clearing, apply only to the Reduced Alternative I and Alternative II. Mitigation Measures 2.2c, 2.2d & e, and 2.2f & g were modified to reflect the revised wetland and upland impacts. Also, Mitigation Measure 2.2.f & g was modified to reflect the increase in the proposed open space configuration. Table 2.2-1 was modified to reflect the revised wetland impacts and required mitigation. Table 2.2-2 was modified to reflect the revised BMO required mitigation and open space constituents. The biological impacts of the expanded fire clearing areas were not analyzed for the Applicant's Preferred Project because this design will not be carried forward to the decision makers. Rather, the Reduced Project Alternative I will be carried forward, and the impacts of this alternative are analyzed in the EIR (see Chapter 4.0 Project Alternatives). The results of the 2009 survey did not necessitate changes to the impact analysis in the DEIR or associated mitigation measures.

This biological resources discussion is a summary of the Salvation Army Divisional Camp and Retreat Biological Report prepared by Merkel & Associates, Inc. (Merkel & Associates, 2008 [EIR Appendix B]). New survey work was conducted by Merkel & Associates, Inc. in 2007 and by County staff in 2009. Wetlands and wetland buffers were re-examined relative to the 2007 Resource Protection Ordinance and the vegetation mapping/species composition and distribution was re-examined in 2009 to identify any substantial changes since the previous biological survey and mapping efforts. The updated survey revealed that there have not been significant changes in the vegetation communities or species composition and distribution on the property since the previous biological surveys and mapping effort.

2.2.1 Existing Conditions

The project site is comprised primarily of southern mixed chaparral but also supports several sensitive vegetation communities, particularly a high quality southern coast live oak riparian forest. Two hundred eighty-eight species of plants were within the site area, supporting a variety of animal species. The substantial floristic diversity represented on-site reflects the variety of habitats and microhabitats present, the relatively large size of the property, and the intermediate geographic location of the site between the coast and higher mountains.

The project site supports a variety of species typically associated with chaparral, sage scrub, and oak woodland habitats within the region. Most notable of these are Englemann Oak, San Diego Horned Lizard, Orange-throated Whiptail, Cooper's Hawk, Red-shouldered Hawk, Southern California Rufous-crowned Sparrow, and Mule Deer.

2.2.1.1 Vegetation Communities

The following vegetation communities were delineated on the project site (See Figures 2.2-1 through 2.2-11):

Coast Live Oak Woodland - Approximately 20.34 acres of Coast Live Oak Woodland occur within the project site. Excellent stands of Coast Live Oak Woodland with two species of large oaks occur on the site. Coast Live Oaks are the dominant component of the habitat, which occupies the flatter meadows. In addition, Englemann Oaks are interspersed with Coast Live Oaks throughout the Camp.

Coastal Sage-Chaparral Scrub - Approximately 46.23 acres of Coastal Sage-Chaparral Scrub occur on the project site. A mix of sclerophyllous (stiff-leaved wood plants with evergreen foliage that retains water), woody chaparral species and drought-deciduous, malacophyllous (fleshy-leaved water storing plants) sage scrub species characterize this habitat. Areas mapped as coastal sage-chaparral scrub on-site contain predominately chaparral associated species with irregular sage scrub species presence.

Southern Mixed Chaparral - Approximately 402.55 acres of Southern Mixed Chaparral occur on the project site. In general, this habitat can be described as a relatively tall plant community dominated by broad-leaved, deep-rooted, woody shrubs. It occurs on dry, rocky, often steep slopes with sparse soils. Shaded north-facing slopes are generally where the densest vegetation occurs, while south-facing slopes are more open. Chaparral dominates the higher elevations on the Camp. Prior to the Cedar Fire, a dense impenetrable canopy was formed by woody shrubs such as Scrub Oak, Mission Manzanita, Whitebark Lilac,

Holly-leaf Cherry, and Chamise; however, the Cedar Fire decreased chaparral scrub density throughout the Camp. Included in this vegetation are infrequent individual Coast Live Oaks, as well as Our Lord's Candle, Spanish Bayonet, Climbing Bush Penstemon, and Desert Elderberry. Occasionally within the understory of the chaparral are herbaceous species such as Peony and Pacific Sanicle.

Mafic Southern Mixed Chaparral - Approximately 6.48 acres of Mafic Southern Mixed Chaparral occur on the project site (see Figures 2.2-8 and 2.2-10). Southern Mixed Chaparral accounts for most of the on-site chaparral, but it is replaced in some of the higher elevations with Mafic Southern Mixed Chaparral. This subtype is typically differentiated from Southern Mixed Chaparral based upon soil type, as floristic distinctions between subtypes are not clearly defined. The Friant soils, which are known to support Mafic Southern Mixed Chaparral species, were not mapped in all of the Camp areas delineated as Mafic Southern Mixed Chaparral (Bowman et al. 1973). However, Soil Conservation Service maps are gross in nature and may not reflect smaller scale soils variations. Portions of the on-site chaparral habitat were designated as Mafic Southern Mixed Chaparral due to the presence of plant species typically associated with the soils, which support Mafic Southern Mixed Chaparral. The on-site area mapped as Mafic Southern Mixed Chaparral has been reduced to more closely follow the pattern of plant species associated with this vegetation community.

Diegan Coastal Sage Scrub - Approximately 16.43 acres of Diegan Coastal Sage Scrub occur on the project site. The vegetation community includes a dominance of low, soft-woody sub-shrubs that are typically drought deciduous. California Sagebrush and Flat-top Buckwheat are most common with significant incursions of Laurel Sumac and White Sage. The Diegan Coastal Sage Scrub understory includes Coastal Deerweed, Caterpillar Phacelia, and non-native grasses. Sage scrub occurs in the Camp's southeastern region, in the central eastern region, and to a lesser extent in the northeast.

Disturbed Land/Habitat - Approximately 16.58 acres of Disturbed Land/Habitat occur on the project site. Disturbed habitats on the site include the areas around the existing development that have been historically cleared or brushed and are maintained through a similar regime, as well as areas that were more recently grubbed or cleared. The areas mapped as Disturbed do not include the Non-native Grasslands associated with existing development or areas.

Emergent Wetland - Approximately 0.03 acre of Emergent Wetlands occur within the project site. Herbaceous wetland occupies isolated portions of non-native grasslands, which appear to have been historically disturbed.

Mule Fat Scrub - Approximately 0.02 acre of Mile Fat Scrub occur within the project site (see Figures 2.2-8). This riparian community is characterized by Mule Fat. It persists along intermittent stream channels with fairly coarse substrate and moderate depth to the water table. On-site this habitat is limited to one location near the base of the "cross trail". This small area of wetland is surrounded by non-native grasses and other species indicative of disturbance to the northeast, and Southern Mixed Chaparral to the west.

Non-Native Grasslands - Approximately 22.83 acres of Non-native Grasslands occur in patch sizes varying from 0.001 acre to 3.01 acres in the central portion of the project site. Non-native Grasslands are well

distributed in the central portion of the site. Such communities develop most commonly where native scrub has been disturbed by grazing, disking, or fire. On-site Non-native Grasslands are limited in size and are disturbed on an on-going basis through mowing.

Non-Native Woodland - Approximately 4.39 acres of Non-native Woodland occur on the project site. Groves of Eucalyptus trees and Mission Olives occur within developed portions of the site. Understory plants are generally absent from these stands. Additional non-native tree species include Cypress, Juniper, California Incensecedar, Pine, and Thread Palm. All of these are located within Disturbed or developed portions of the Camp.

Rock Outcrops - Rock outcrops are considered sensitive habitat by the California Department of Fish and Game (CDFG) as listed in CNDDDB. The acreage of rock outcrops is included in the vegetation type surrounding the rock outcrop. Large boulders, rock slabs, and outcrops are a dominant characteristic of the landscape. Rock outcrops increase habitat heterogeneity, which is positively correlated with species diversity. Rock Lotus, California Bee-Plant, Lady Fingers, Blood Onion, and Bigelow's Mossfern are associated with rock outcrops on the site.

Southern Coast Live Oak Riparian Forest - Approximately 33.63 acres of Southern Coast Live Oak Riparian Forest occur within the project site. Oak woodlands with considerable concentrations of Coast Live Oaks with scattered large Western Sycamores are concentrated within drainages on the Camp property forming bands of Southern Coast Live Oak Riparian Forest. The density of the riparian oaks was decreased by the Cedar Fire, but they continue to form a riparian forest. Most of the on-site oaks damaged by the Cedar Fire have resprouted and appear to be in healthy condition; however, recruitment or the presence of seedlings or samplings has not been tracked. Oaks within the riparian corridor are typically mature trees.

Southern Willow Scrub - Approximately 0.73 acres of Southern Willow Scrub occur within the project site. Southern Willow Scrub consists of broad-leafed, winter-deciduous riparian thickets dominated by several *Salix* species. The majority of the Southern Willow Scrub on-site occupies portions of the West Fork drainage. (See Figures 2.2-2, 2.2-3, 2.2-4, 2.2-6, 2.2-8, 2.2-9) However, following the Cedar Fire, Southern Willow Scrub has grown up within a drainage northwest of the existing cabin complex where a Non-Wetland Water dominated by Non-Native Grassland was previously mapped. The long-term viability of this area of willow scrub is unknown, but it is mentioned herein as it lies within open space that will be subject to management.

Urban/Developed Lands - Approximately 7.76 acres of project site are occupied by residences and Camp facilities, as well as roads, and parking areas. Exotic, ornamental plantings are associated with the project site.

A. Wetland Delineation

Determining Presence/Absence of Wetlands

The extent of wetlands, waters, and streambeds on-site was ascertained by conducting ~~a~~-jurisdictional wetland delineations^s in accordance with the routine on-site determination methods noted in the 1987 Army Corps of Engineers' (ACOE) Wetland Delineation Manual (Environmental Laboratory 1987). A jurisdictional wetland delineation uses three parameters to determine the presence/absence of wetlands, Non-wetland Waters of the U.S., and streambeds occurring on-site. Additional information on the overall delineation process and regulatory jurisdictions may be found in the federal delineation manual (Environmental Laboratory 1987), as well as through local, state, and federal enacting legislation, or through guidance provided by judicial interpretation, solicitors' opinions, and regulatory guidance. Initial wetland delineation work was conducted within the project footprint in May 2000. Additional wetland delineation work was conducted in December 2000, which covered areas outside of the proposed project footprint and compiled wetland delineation data for the remainder of the site. More intensive wetland delineation survey was performed December 17 through December 20 and December 26, 2001. Finally, in 2007, additional wetland surveys were conducted to reassess jurisdictional wetlands following the ~~adoption of the 2007 amendment to the~~ RPO, which altered the definition of County jurisdictional wetlands. While the purpose of the 2007 fieldwork was to re-assess County wetland jurisdiction under the ~~2007 amended~~ RPO, all wetland locations and boundaries were checked and previously inaccessible areas were mapped. Mapping utilized a Global Positioning System (GPS) and/or updated aerial photograph, which provided a much clearer view of the drainages due to the loss of overstory and dense chaparral from the Cedar Fire.

The presence or absence of three parameters was assessed to determine if an area was a jurisdictional wetland: 1) hydrophytic vegetation, 2) wetland hydrology, and 3) hydric soils. These parameters are discussed additionally below.

Vegetation communities which meet the criteria of wetland-associated vegetation are dominated by a preponderance (>50 percent) of species classified as obligate wetland plants (OBL) (estimated probability of occurring in wetlands, >99%), facultative wetland plants (FACW) (estimated probability of occurring in wetlands, 67% to 99%), or facultative plants (FAC) (estimated probability of occurring in wetlands, 33% to 67%) based on the National List of Plant Species that Occur in Wetlands (U.S. Fish & Wildlife Service 1988).

Wetland hydrology is indicated by the presence of surficial characteristics or sub-surficial hydric characteristics, showing that "presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic and reducing conditions, respectively." Surficial hydrology can be determined through visual observation of surface flow, drainage patterns, watermarks, and/or drift lines. Sub-surficial characteristics include saturated soils or presence of free water in the test pit.

Hydric soil indicators are present when soils "have formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part (United States Department of Agriculture Natural Resources Conservation Service updated)." To determine

the presence/absence of hydric soils, samples taken from various depths are examined for physical and chemical evidence of hydric conditions. The color of excavated soils are evaluated using the chroma index from the Munsell Soil Color Charts (Munsell Color 1994). Low-chroma color or gleyed soils are indicators of hydric soils under normal conditions. Additional indicators of hydric soils such as vertical streaking, high organic matter content in the surface horizon, mottling, and sulfidic odor were also evaluated during the delineation.

Jurisdiction of Wetlands and Waterways

For this particular project site, wetlands and waterways fall under the jurisdictions of the ACOE, CDFG, and the County of San Diego (County). Each agency has a slightly different definition of “wetlands”, and therefore, the extent of each agency’s jurisdiction can vary. The extent of, jurisdictional boundaries was determined according to the ACOE, CDFG, and RPO definition of a wetland. This information was mapped accordingly, which is why there may be different jurisdictional acreage calculations for each wetland habitat.

U.S. Army Corps of Engineers Jurisdiction

Under Section 404 of the Clean Water Act, the ACOE has regulatory authority over the discharge of dredged or fill materials into the waters of the United States (1344 USC). The term “waters of the United States” is defined in 33 CFR Part 328(a) as: (1) all navigable waters (including all waters subject to the ebb and flow of the tide); (2) all interstate waters and wetlands; (3) all other waters such as intrastate lakes, rivers, streams, (including intermittent streams), mudflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce; (4) all impoundments of water mentioned above; (5) all tributaries to waters mentioned above; (6) the territorial seas; and, (7) all wetlands adjacent to waters mentioned above.

Wetlands are defined at 33 CFR 328.3(b) as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support ... a prevalence of vegetation typically adapted for life in saturated soil conditions.” To be considered a jurisdictional wetland under the ACOE, all three parameters (hydrophytic vegetation, hydric soils, and hydrology) must be met.

In the absence of wetlands and non-tidal waters, the limits of ACOE jurisdiction in non-tidal waters, such as intermittent streams extends to the ordinary high water mark (OHWM) which is defined at 33 CFR 328.3(e) as that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

California Department of Fish and Game Jurisdiction

The CDFG regulates alterations of “streambeds” through the development of a Streambed Alteration Agreement pursuant to Division 2, Chapter 6 of the Fish and Game Code. An Agreement is required whenever a project would “divert, obstruct or change the natural flow or bed, channel or bank of any river, stream or lake designated by the Department.”

The breadth of jurisdiction under the CDFG differs from the ACOE in that a “Streambed” is not limited to the OHWM, but rather encompasses the entire width of the streambed, from bank to bank, regardless of water level. In addition, jurisdictional wetlands under the CDFG only require that one wetland parameter be present, but the wetlands must be associated, within or adjacent, to a streambed. Furthermore, CDFG jurisdiction extends over “adjacent riparian habitat,” including riparian habitat supported by a river, stream, or lake, even if the riparian area does not necessarily meet the hydrophytic vegetation criteria as defined by the ACOE.

County of San Diego

The County regulates wetlands under the RPO. Under the ~~newly approved, 2007~~ amended RPO, the County has defined an RPO jurisdictional “wetland” as lands having one or more of the following attributes:

- At least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places);
- The substratum is predominantly undrained hydric soil; or
- An ephemeral or perennial stream is present, whose substratum is predominately non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

The RPO goes on to state, “Notwithstanding the paragraph (1) [above], the following shall not be considered “wetlands”:

Lands which have attribute(s) specified in paragraph (1) solely due to man-made structures (e.g., culverts, ditches, road crossings, or agricultural ponds), provided that the Director of Planning and Land Use determines that they:

- Have negligible biological function or value as wetlands;
- Are small and geographically isolated from other wetland systems;
- Are not Vernal Pools; and,
- Do not have substantial or locally important populations of wetland dependent sensitive species.

RPO Wetlands

Passed in 2007, Ordinance No. 9842 (New Series), An Ordinance Codifying And Amending The Resource Protection Ordinance, Relating To Wetlands, Prehistoric And Historic Sites, Agricultural Operations, Enforcement, And Other Matters, revised the 1991 County RPO definition of a “wetland”. The revised definition of a wetland is less inclusive than the 1991 RPO definition. As a result, some areas previously delineated as County jurisdictional wetlands may no longer qualify as RPO wetlands and may not be subject to the RPO development restrictions within wetlands and wetland buffers. Specifically, under the 1991 RPO, lands whose “substratum is non-soil and is saturated with water or covered by water at some time during the growing season of each year” would qualify as RPO wetlands. Under the revised 2007 definition of a wetland, such lands must support an ephemeral or perennial stream, whose substratum is

predominately non-soil and such lands must contribute substantially to the biological functions or values of wetlands in the drainage system. Thus, the updated definition of a wetland is based not solely on form but on functions and values.

In the case of the Camp, the majority of the areas previously delineated as County RPO jurisdictional wetlands meet the 2007 definition of a wetland (based on the presence of hydrophytic vegetation or their contributions of the functions and values of the drainage system). In contrast, 2 areas previously delineated as RPO wetlands do not qualify as wetlands under the 2007 definition. The Central Camp Tributary Drainage and Southern Camp Drainages contain ephemeral drainages within the existing camp use area. These drainages lack hydrophytic vegetation, are not part of a wildlife corridor, and do not support any sensitive species. In terms of functions and values, these are narrow drainages that lack herbaceous vegetation within the channel; thus, they tend to flow quicker, yielding significantly less groundwater recharge, sediment retention, toxicant retention, and nutrient transformation. These drainages, thus, have low physical and chemical functions. In addition, the Southern Camp Drainages lack connectivity, precluding any substantial contributions to the drainages system.

The Central Camp Tributary Drainage and Southern Camp Drainages function solely to convey water from higher elevation lands in the west eastward, in some cases connecting with lower drainages; however, this function is the result of topography and is not dependant upon the specific morphology of the drainage. The water flow of the site's western hills will continue to flow eastward regardless of the presence or absence of these small, unvegetated channels; thus, their conveyance of water does not qualify as a substantial contribution to the biological functions or values of wetlands in the drainage system. They support a purely physical function, which is not dependent upon their presence, but simply reflects the path of least resistance for water flow. Absence of these drainages (while not proposed by the project) would not prevent flow of water eastward into the drainage system.

Having analyzed the conditions of the drainages on-site, the Central Camp Tributary Drainage and Southern Camp Drainages do not qualify as County wetlands pursuant to the 2007 RPO.

The RPO defines wetland buffers as, "lands which provide a buffer area of an appropriate size to protect the environment and functional habitat values of the wetland, or which are integrally important in supporting the full range of the wetland and adjacent upland biological community." In terms of buffer widths, the RPO states that they shall be 50 to 200 feet from the edge of the wetland as appropriate based on the above factors, and where oak woodland occurs adjacent to the wetland, the buffer shall include the oak woodland (not to exceed 200 feet). The RPO regards these buffer areas much the same way as wetlands, by restricting development to only a few permitted uses. There is no "buffer" required of oaks. All oaks adjacent to a wetland must be contained within the wetland buffer (not to exceed 200 feet).

The presence of native hydrophytic vegetation, a wildlife corridor, or sensitive species increase the need for wetland buffering due to increased functions and values of the wetland and the presence of sensitive or ecologically important features. One of these characteristics alone may not require a substantially larger buffer, but where all three occur, the wetland buffer should increase. The absence of such characteristics

indicates a decreased need for buffering, as the drainage or hydrological feature's functions and values would be lower. The drainage may just function as a water conveyance.

B. Wetland Habitats

On-site wetlands and waterways are separated into four specific habitat types (Southern Coast Live Oak Riparian Forest, Mule Fat Scrub, Southern Willow Scrub, and Emergent Wetland) depending on the dominant species found in the area. Non-wetland Waters of the U.S. (jurisdictional under ACOE and County) and Streambed (jurisdictional under CDFG) are other categories that are used to describe jurisdictional waters that do not support wetland vegetation, but exhibit wetland hydrologic characteristics.

The acres of on-site wetlands have been tabulated according to habitat type and according to jurisdiction by each regulatory agency. Again, because each regulatory agency has a different definition of wetlands and different breadths of jurisdiction, the jurisdictional acreages tabulated for each agency can vary, overlap, encompass entirely separate areas, or be the same; it all depends on the physical characteristics found on-site.

ACOE, CDFG and County jurisdictional wetlands and waterways, as well as non-wetland Waters/Streambeds, delineated for the proposed development area are shown on Figures 2.2-1 through 2.2-11.

Jurisdictional non-wetland Waters/Streambed and four wetland vegetation types (Southern Coast Live Oak Riparian Forest wetlands, Southern Willow Scrub, Mule Fat Scrub, and Emergent Wetland) were identified within the study area. Approximately 33.63 acres of jurisdictional Southern Coast Live Oak Riparian Forest wetlands exist on-site; approximately 0.73 acres of jurisdictional Southern Willow Scrub occur in the central portion of the site; approximately 0.02 acre (948 square feet) of jurisdictional Mule Fat Scrub occurs within the study area; and approximately 0.03 acre (1,414 square feet) of jurisdictional Emergent Wetland occurs on-site. Finally, approximately 4.75 acres of jurisdictional Non-wetland Waters are found on-site.

2.2.1.2 Sensitive Plant Species

Sensitive plants include those listed by USFWS, CDFG, the California Native Plant Society (CNPS) and/or the County of San Diego. Also within this list are MSCP-covered species. Five sensitive plant species were identified within the camp property: Gander's Butterweed or Ragwort, Felt-leaved Monardella, Ramona Horkelia, Ashy Spike-moss and Engelmann Oak. MSCP covered plant species include Gander's butterweed and felt-leaved monardella.

Gander's Butterweed, Felt-leaved Monardella, and Ramona Horkelia are located in a high elevation chaparral community (Southern mixed chaparral) on the property. Each species was identified near the western trail that leads to a cross/scenic overlook. Gander's Butterweed was also identified in the northern portion of the project site, adjacent to an existing hiking trail. Ashy Spike-moss, in association with rock outcrops, is located throughout the site, particularly in the mid to high elevations. Engelmann Oaks are located throughout the property. The plant populations are primarily associated with the habitat openings created by the trail, but occur within native habitats on trail edges. Table 5 of the Biological Technical

Report (see EIR Appendix B) provides the approximate plant populations which range as low as three individuals counted of Gander's butterweed to abundant Ashy Spike-moss.

2.2.1.3 Sensitive Wildlife Species

Sensitive wildlife species include those listed by USFWS, CDFG, and those considered regionally or locally sensitive by the County of San Diego. Also within this list are MSCP-covered species. A number of sensitive species recorded in the area are expected to use portions of the site. Sensitive species observed or detected within the project site include San Diego Horned Lizard, Orange-throated Whiptail, Turkey Vulture, Cooper's Hawk, Red-shouldered Hawk, Southern California Rufous-crowned Sparrow, Western Bluebird, Northwestern San Diego Pocket Mouse, San Diego Desert Woodrat, and Mule Deer.

2.2.1.4 Existing Regulations

A. Multiple Species Conservation Program and Biological Mitigation Ordinance

The County has adopted the Multiple Species Conservation Program (MSCP), a comprehensive, long-term habitat conservation plan for southwestern San Diego County. The County implements the MSCP Plan through a subarea plan, which describes specific implementing mechanisms for the MSCP. The combination of the subregional MSCP and subarea plans serve as: 1) a multiple species Habitat Conservation Plan, pursuant to Section 10(a) of the federal Endangered Species Act; and 2) a NCCP Plan, pursuant to the California Natural Community Conservation Program (NCCP) Act of 1991 and the state Endangered Species Act. The MSCP and subarea plans allow for the incidental take of Covered Species as specified in the plan.

As part of the MSCP, the County of San Diego has entered into an Implementing Agreement with the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG). The Implementing Agreement is the contract between the County and the wildlife agencies, which outlines the obligations and commitments made for the successful completion of the MSCP. The Implementing Agreement allows the County of San Diego to grant Third Party Beneficiary Status to projects within its subarea that are consistent with the MSCP Subarea Plan, implementing regulations and guidelines. This, in turn, permits beneficiaries to take the habitat of sensitive plant and animal species covered under the County's MSCP Subarea Plan, in accordance with their specific conditions of project approval.

The Subarea Plan is divided into three Segments: Lake Hodges, Metropolitan-Lakeside-Jamul and South County. The project site is located in the Metropolitan-Lakeside-Jamul Segment. There are several critical or "core" biological resource areas identified in the Metro-Lakeside-Jamul segment that are targeted for preservation under the County's MSCP Subarea Plan. Biological core resource areas are high quality habitats that support a variety of sensitive species and provide connecting linkages to other habitats within and outside the MSCP preserve area.

The County also implements the MSCP through the County's Biological Mitigation Ordinance (BMO). The BMO "sets forth the criteria for avoiding impacts to Biological Resource Core Areas and to plant and animal populations within those areas, and the mitigation requirements for all projects requiring a discretionary permit. It is the policy of this Ordinance to promote the preservation of biological resources

by directing preservation toward land which can be combined into contiguous areas of habitat or linkages. It is the further policy of this ordinance to give greater value to the preservation of large contiguous Biological Resource Core Area linkages when formulating avoidance and mitigation requirements.”

Except for certain specified exemptions, the BMO applies to all land in the County within the boundaries of the MSCP, and the BMO applies to discretionary projects subject to CEQA, such as the proposed project. “No project requiring a discretionary permit shall be approved unless a finding is made that the project is consistent with the MSCP Plan, the County Subarea Plan and the provisions of this Ordinance.” (BMO, Article II.)

Under BMO, Article V, Project Design, “impacts to land determined to be a Biological Resource Core Area shall be avoided to the maximum extent practicable by using the following design criteria:

1. Project development shall be sited in areas which minimize impact to habitat;
2. Clustering to the maximum extent permitted by County regulations shall be considered where necessary as a means of achieving avoidance;
3. Notwithstanding the requirements of the Slope Encroachment Regulations contained within the Resource Protection Ordinance, effective March 21, 2007, projects shall be allowed to utilize design which may encroach into steep slopes to avoid impacts to habitat;
4. The County shall consider reduction in road standards to the maximum extent consistent with the public safety considerations;
5. Projects shall be required to comply with applicable design criteria in the County MSCP Subarea Plan, attached hereto as Attachment G (Preserve Design Criteria) and Attachment H (Design Criteria for Linkages and Corridors).

Articles VI and VII of the BMO specify habitat-based and species-based mitigation requirements. However, before applying any mitigation, the project must be designed to avoid impacts to Biological Resource Core Areas (BRCA) “to the maximum extent practicable” by, among other things, locating the project in areas that minimize impacts to habitat.”

The project site is located within the Central Poway/San Vicente Reservoir/North Poway Core Resource Area. To aid in conservation efforts, the USFWS and CDFG have identified pre-approved mitigation areas that overlay many of the core biological resource and linkage areas. ~~A small section in the southwestern corner of the subject property is located within a Pre-Approved Mitigation Area (PAMA); however, this area is located outside of the project footprint and within an area that is proposed for preservation. The project site qualifies as a Biological Resource Core Area (BRCA) based on the BRCA criteria presented in the BMO (Article VI, A1).~~

Wildlife Corridors

The BMO defines “corridor” as a specific route that is used for movement and migration of species. A corridor may be different from a “~~l~~inkage” because it represents a smaller or more narrow avenue for

movement. The BMO goes on to define “linkage” as an area of land which supports or contributes to the long-term movement of wildlife and genetic material.

Neither the County MSCP Subarea Plan nor the Poway Habitat Conservation Plan/Natural Communities Conservation Planning (HCP/NCCP) Subarea Plan identifies a corridor in this area. A map-based (GIS) analysis was conducted to identify potential on-site corridors. After considering the presence of high quality habitats, conducive topography, and human encroachment or development, field indicators were used to augment the map-based analysis.

Within the project region, there are several expansive, significant biological areas, which have been assessed as high quality habitat on the Habitat Evaluation Map contained within the County MSCP Subarea Plan. These areas include lands surrounding State Route 67 to the west of the project site, lands to the southwest (San Vicente Open Space Preserve), and lands to the southeast, which form a connection with the recently preserved Monte Vista Ranch lands. In the immediate project vicinity, these regional high quality habitat areas connect via the high quality oak riparian habitat associated with the West Fork of San Vicente Creek (County MSCP Subarea Plan Figure 4-1) and high to very high quality habitats that border the southeastern edge of the Camp.

Much of the topography that favors movement (canyon bottoms) also favors higher quality habitats; thus, likely movement routes delineated based on topography generally corresponded with the high quality linear habitat connections. In some cases, topography and habitats create a “dead-end” route, where drainages abut steep slopes; these areas are less likely to support wildlife movement. In the case of the proposed project site, existing on-site development in the central valley portion of the site and ranching development to the north and south, limit the likelihood of extensive north-south wildlife movement, despite the advantageous topography. Thus, having examined regional connectivity potential, habitat quality, topography, and existing human development, the primary movement routes identified were east-west routes south of the Camp and along the West Fork of San Vicente Creek within the northern Camp property. Fieldwork conducted over several years supported designation of the West Fork of San Vicente Creek as a corridor. Through observation of tracks, scat, and individual mammals, bobcat, coyote, grey fox, and mule deer were identified as utilizing the West Fork corridor on-site. Although each of these species was also identified in other on-site areas, track abundance was higher at the West Fork-Mussey Grade Road connection than at other areas examined.

The project site’s contiguous riparian habitat oak woodlands, associated with the West Fork of San Vicente Creek, form the local corridor. This local corridor crosses Mussey Grade Road at the Camp entrance where an underpass, if utilized, permits the continued safe passage of wildlife to the southeast and provides evidence of local corridor use, in the form of tracks. To the east, this local corridor connects with the Iron Mountain Preserve lands. On-site corridors appear to be utilized by meso-predators, Bobcat, Coyote, and Mule Deer.

The Biological Monitoring Plan for the MSCP addresses regional versus local corridors. It states that *“regional corridors link two or more large areas of natural open space and are necessary to maintain demographic and genetic exchange between wildlife populations residing within these geographically disjunct areas.*

Local corridors allow resident animals access to necessary resources within a large habitat patch and they may function as secondary connections to the regional corridor system.” A regional corridor has not been identified on-site, as there is a lack of habitat connectivity to the north, east, and south of the site (regionally), due to residential development. In addition, the on-site habitats are not necessary to maintain the viability of wildlife populations in the region. Specifically, rural residential development occupies the land eastward and additional development has been approved immediately east of Mussey Grade Road; north of the site, native habitats have largely been converted to agricultural use (Golden Eagle Ranch and other equestrian facilities in southern Ramona); and south of the site, limited agricultural and rural development combined with Mussey Grade Road’s impacts on the riparian corridor and the topography (numerous steep north-south ridgelines) limit the suitability of the area for regional north-south wildlife movement. Finally, a more suitable (east-west) regional corridor exists to the south through the San Vicente Open Space Preserve.

Additional corridors were evident (through the presence of scat, predominantly Coyote) along some of the maintained and non-maintained trails. The use of a “least resistance route” with sufficient cover is expected. As no specific linear feature or habitat is associated with such “trail” routes they are likely advantageous movement avenues but not necessary corridors for daily or seasonal movement.

The MSCP and BMO contain design standards/criteria for corridors and linkages. Since the project site does not contain any linkages, only the criteria regarding corridors apply to the proposed project. Please refer to EIR Section 2.2.3.5 for a detailed discussion of project compliance with applicable criteria.

B. Resource Protection Ordinance

The purpose of the Resource Protection Ordinance (RPO) is to protect and preserve environmentally sensitive lands along with the County’s unique topography, natural beauty, diversity, and natural resources, for current and future residents of the County of San Diego. The RPO defines “environmentally sensitive lands” as lands containing any of the following: 1) wetlands; 2) floodplains; 3) steep slopes; 4) sensitive habitats; and, 5) significant prehistoric and historic sites.

With respect to RPO defined environmentally sensitive lands relevant to biological resources, the project site contains wetlands and sensitive habitat lands. Please refer to the wetland delineation discussion above for RPO wetland and wetland buffer definitions. Each of these environmentally sensitive lands has particular development restrictions, which have been defined by the RPO. The only uses allowed in wetland areas under the RPO are restricted to the following: “1) aquaculture, provided that it does not harm the natural ecosystem; 2) scientific research, educational or recreational uses provided that they do not harm the natural ecosystem; 3) removal of diseased or invasive exotic plant species; 4) wetland restoration projects where the primary function is restoration of the habitat and 5) crossing of wetlands for roads, driveways or trails/pathways” (County of San Diego, 2007). Wetland buffers also have development restrictions, where the only allowable uses include the following: “1) improvements necessary to protect adjacent wetlands; and 2) all uses permitted in wetland areas” (County of San Diego, 2007). No uses or impacts other than those listed above are allowed within wetlands or their adjacent wetland buffers.

RPO regulates sensitive habitat lands as follows: “Development, grading, grubbing, clearing or any other activity or use damaging to sensitive habitat lands shall be prohibited. The authority considering an application listed at County Code Title 8, Division 6, Chapter 6, Section 86.603(a) may allow development when all feasible measures necessary to protect and preserve the sensitive habitat lands are required as a condition of permit approval and where mitigation provides an equal or greater benefit to the affected species.” (County of San Diego, 2007). The RPO also states that sensitive habitat lands include the areas which are necessary to support a viable population of any rare or endangered species or sub-species as defined by CEQA Guidelines Section 15380 in perpetuity, or which is critical to the proper functioning of a balanced natural ecosystem, or which serves as a functioning wildlife corridor. Although the site does not qualify as a regional corridor or linkage pursuant to the MSCP/BMO, the site does contain a locally functioning wildlife corridor and therefore, qualifies as a sensitive habitat pursuant to RPO.

County Code Title 8, Division 6, Chapter 6, Section 86.604 of the RPO regulates sensitive lands, such as wetlands, wetland buffer areas and sensitive habitat lands, as explained above. However, RPO also states “that where the extent of environmentally sensitive lands on a particular legal lot is such that no reasonable economic use of such lot would be permitted by these regulations, than an encroachment into such environmentally sensitive lands to the minimum extent necessary to provide for such reasonable use may be allowed.”

This exception to allow encroachment into environmentally sensitive lands does not apply here. After applying RPO regulations to the project site, the applicant still has a reasonable economic use as shown by Reduced Alternatives I and II.

Approval of the proposed project requires a finding that the project is consistent with RPO. (County Code Title 8, Division 6, Chapter 6, Section 86.603).

2.2.2 Thresholds of Significance

Impacts to biological resources are assessed through the CEQA review. There would generally be a significant effect on biological resources if the project would:

- substantially affect an endangered, rare, or threatened species or the habitat of such a species;
- interfere substantially with the movement of any resident or migratory fish or wildlife species;
- substantially diminish habitat for fish, wildlife or plants;
- conflict with the County MSCP Subarea Plan/BMO; or,
- conflict with the County RPO.

These criteria are applicable for this analysis as they are based on approved federal, state and local legislation that are designed to preserve and protect biological resources.

2.2.3 Analysis of Project Effects and Determination as to Significance

The project impacts were assessed based on the site plan for the Applicant's Preferred Project (748 persons) (Figure 1-4) but do not account for the expanded fuel modification zones required by the Fire Protection Plan. As explained previously, the biological impacts of the expanded fuel modification zone on the Applicant's Preferred Project were not analyzed because this design will not be carried forward to the decision makers. The analysis for of the biological impacts of Reduced Project Alternative I and Alternative II including the increased fuel modification zones is provided in this section, Section 4.0 Project Alternatives. Also, Table 4-1 (Chapter 4 Alternatives) provides the specific impacts associated with each alternative. With the exception of Coast Live Oak (0.67 acres) impacts to vegetation communities remain less under Reduced Project Alternatives I and II with the FPP expanded fuel modification requirements, even when compared to the Applicant's Preferred Project without the application of expanded fuel modification requirements.

In addition, the following assumptions were utilized in calculating impacts to biological resources:

- Oaks within 25 feet of a proposed ground altering impact are considered impacted. Also, oaks within 25 feet of a ground disturbing impact, but outside the development bubble were considered impacted as a result of the development (except along existing roadways); and, although oaks may not be removed as a result of fire clearing, removal of the understory was considered an impact for oaks and oak woodland that qualify as a biological resource.
- Impacts associated with installation of a water line are limited to within the existing on-site road area where the line runs under the road. Outside of roadways, installation of the waterline is considered to result in a six-foot-wide direct impact to native vegetation and an indirect impact to oaks within 20 feet (pers. comm., Dickman, D. January 23, 2003).
- For areas where proposed visitor facilities are adjacent to or in the immediate vicinity of existing visitor facilities, and no effective means of controlling or channeling foot traffic can be assured, a worst case impact footprint was delineated that includes the area between the facilities where increased foot traffic and human associated disturbance are expected to alter the existing resources.
- Where staff housing is proposed or exists, an impact footprint that connects the proposed and existing facilities has not been delineated, as there would be no substantial change from existing conditions in terms of foot traffic.

The area considered impacted included all areas within the "development bubble," as drawn by Matalon Architecture and Planning and displayed on the plans, with the following exceptions:

- areas of existing development where no change is proposed and no new fire clearing is required (e.g., existing leach fields) were not considered as a new impact; and,
- areas of existing development where Coast Live Oak Woodland occurs within the existing developed area (e.g., between buildings) were not considered impactful to the oaks as a biological resource requiring mitigation (Dickman, 2001).

Impacts of the proposed project to on-site vegetation communities, including non-sensitive and sensitive habitats; wildlife corridors, sensitive plant species, and sensitive wildlife species were thoroughly investigated.

2.2.3.1 Vegetation Communities

A complete list of impacts to vegetation communities on-site is provided in Table 2.2-1. The MSCP/BMO classify wildlife habitats according to a four-tier system. Habitats are classified in order of decreasing sensitivity. Tier I habitats include wetlands and riparian habitats, oak woodlands and Mafic Southern Mixed Chaparral. Tier II habitats include Diegan Coastal Sage Scrub and Coastal Sage-Chaparral Scrub. Tier III habitats include Southern Mixed Chaparral and Non-native Grasslands. Finally, Tier IV habitats are disturbed lands, agricultural lands and eucalyptus or other non-native woodlands.

A. Tier I Habitats

1. *Coast Live Oak Woodlands and Southern Coast Live Oak Riparian Forest*

Both individual oaks and areas of oak woodland would be affected by the proposed project.

Impact 2.2.a The proposed project would impact 2.00 acres of Southern Coast Live Oak Riparian Forest. Approximately 0.04 acre of this impact would result from implementation of the Retreat Center and access road. (Reduced Project Alternative I impact is 1.36 acres of Southern Coast Live Oak Riparian Forest)

Impact 2.2.b The proposed project would impact 7.29 acres of Coast Live Oak Woodlands. Approximately 0.44 acre of this total would result from implementation of the proposed Retreat Center and access road. (Reduced Project Alternative I impact is 7.96 acres of Coast Live Oak Woodlands.)

Oak impacts are considered significant because of the high number of oak trees present on-site, the size of the project and the quality of oak woodland and forest habitat on-site as well as the sensitivity of oak habitats (i.e., County Tier I). The impact to 2.00 acres of Southern Coast Live Oak Riparian Forest and 7.29 acres of Coast Live Oak Woodlands is considered significant.

2. *Mule Fat, Southern Willow Scrub, Non-Wetland Waters of the U.S., and Emergent Wetlands*

No impacts to Mule Fat Scrub or Southern Willow Scrub would occur with project implementation, therefore, impacts would be less than significant.

Impact 2.2.c The proposed project would impact 0.17 acre of ACOE Non-wetland Waters of the U.S. that are County-jurisdictional (RPO) wetlands. Approximately 0.05 acre of this total would result from construction of the Retreat Center access road and 0.12 acre would result from human foot traffic throughout the remainder of the project site. (Reduced Project Alternative I impact is 0.03 acre of RPO wetlands.)

Emergent wetlands occur in two locations within the proposed project footprint on-site. Since Emergent Wetlands can be difficult to identify by the lay person it would be expected that without obvious delineation this area would be impacted during the course of construction or subsequent fire clearing. The project has incorporated permanent fencing and signage design elements and included requirements for construction fencing and monitoring relative to protection of this habitat. All of these avoidance measures are conditions of project approval (Section 1.1.1.2). The purpose of the temporary “construction” fencing and monitoring is to ensure that clearing, grading, and/or use or storage of heavy equipment does not occur within this sensitive habitat. The project includes permanent split-rail fencing at each of the two locations with signs identifying the area beyond as an **“Environmentally Sensitive Area – No Admittance.”** The location of the fencing is illustrated in Figure 1-15. As such, impacts to emergent wetlands would not be significant.

Because the proposed project would impact wetlands, permits must be obtained from the ACOE and CDFG as discussed above. As noted in Section 1.1.1.2, Major Use Permit Approval Conditions, the applicant must provide evidence that all required state and federal wetland permits have been obtained.

B. Tier II Habitats

1. Diegan Coastal Sage Scrub

There has been a significant loss of this sensitive, native vegetation community throughout the County. Diegan Coastal Sage Scrub supports the California Gnatcatcher, a federally threatened species, as well as a host of other regionally or locally sensitive species. Impacts to Tier II habitats are considered significant.

Impact The proposed project would impact 13.12 acres of Diegan Coastal Sage Scrub.
2.2.d Approximately 0.94 acre of this impact would result from construction of the Retreat Center and access road. (Reduced Project Alternative I impact is 12.29 acres of Diegan Coastal Sage Scrub.)

2. Coastal Sage-Chaparral Scrub

Impact The proposed project would impact 9.26 acres of Coastal Sage-Chaparral Scrub.
2.2.e Approximately 1.08 acres of this impact would result from construction of the Retreat Center and access road. (Reduced Project Alternative I impact is 8.18 acres of Coastal Sage-Chaparral Scrub.)

C. Tier III Habitats

1. Southern Mixed Chaparral

Impacts to Southern Mixed Chaparral are considered significant due to its regional decline and habitat value for sensitive species.

Impact The proposed project would impact 37.36 acres of Southern Mixed Chaparral. Approximately
2.2.f 4.48 acres of this impact would result from construction of the proposed Retreat Center and access road. (Reduced Project Alternative I impact is 36.73 acres of Southern Mixed Chaparral.)

2. *Non-native Grasslands*

Impact 2.2.g The proposed project would impact 12.45 acres of Non-native Grasslands. Approximately 0.04 acre of this impact would result from construction of the Retreat Center and access road and 0.41-acre would result from implementation of Mitigation Measure 2.2c, which requires the creation of on-site wetlands. (Reduced Project Alternative I impact is 12.41 acres of Non-native Grasslands.)

D. Tier IV Habitats

1. *Non-native Woodland, Disturbed Habitat and Urban/Developed Lands*

The proposed project would impact 1.64 acres of Non-native Woodlands located in the southcentral portion of the Camp near existing facilities. The proposed project would impact 9.52 acres of Disturbed Habitat and 4.73 acres of Urban/Developed Lands. As Tier IV habitats, these impacts are not considered significant.

E. Rock Outcrops

The proposed education camp is expected to impact limited areas of rock outcrop and encroach upon more extensive outcroppings to the north. However, the proposed project would result in limited impacts to this habitat feature and would maintain extensive Rock Outcrops on the western portion of the project site. Therefore, impacts to rock outcrops would be less than significant.

2.2.3.2 Sensitive Plant Species

Direct impacts to Ramona Horkelia, Gander's Butterweed, and Felt-leaved Monardella would not result from implementation of the proposed project. Populations of these sensitive plants are located to the west of all proposed development. These species are adjacent to two well-established hiking trails that are typically surrounded by dense, uninviting vegetation. The trails show no indications of off-trail human intrusion, and improvements or other alterations are not proposed for these trails. To ensure protection of sensitive plant species, foot stakes (i.e., any permanent item that would not impact the area but would discourage people from leaving the designated trail) and signs will be installed on either side of the trails (Figure 1-14). The signs will delineate the area beyond as an Environmentally Sensitive Area and prohibit access. These measures have been incorporated into the project design as Major Use Permit conditions (Section 1.1.1.2). Therefore, impacts to these populations would not be significant.

Ashy Spike-moss on-site is associated with the major rock outcrops which occur at higher site elevations within the proposed open space easement. Therefore, the project would not result in significant impacts to Ashy Spike-moss populations on-site. This species is no longer considered sensitive by CNPS but remains on the County's Sensitive Plant List as of September 2006.

Impact 2.2.h The proposed project would result in significant direct and indirect impacts to 38 Engelmann Oaks. Six of these Englemann Oaks would be impacted from development of the Retreat Center and access road. (Reduced Project Alternative I impact is 32 Engelmann Oaks.)

At least 28 oaks would be directly impacted by the proposed construction, another two oaks lie adjacent to an existing road proposed for paving and fire clearing, and ten additional oaks lie within an existing development area slated for a conversion from cabins to staff housing and roadway paving. The majority of these impacted oaks are mapped as portions of Coast Live Oak Woodland, although one is mapped as part of Southern Coast Live Oak Riparian Forest, and three are mapped as individual trees in sage scrub, chaparral and scrub-chaparral.

2.2.3.3 Sensitive Wildlife Species

Direct impacts to the California Gnatcatcher are not expected based on the negative results of the 1999 focused surveys. No California Gnatcatchers were observed during general or focused surveys in 1999-2001 or during a general biological survey conducted in 2009 and CNDDDB data (2006) does not indicate the presence of the species within the Camp site or immediate vicinity. Their absence is likely due to elevation and limited habitat connectivity. The site is not outside of their range but represents sub-optimal habitat outside of a typical dispersal corridor.

Impact Increased noise levels associated with temporary project construction could result in significant indirect impacts to the California Gnatcatcher.

2.2.i

The project does not propose any development within 4,000 feet of the Iron Mountain Golden Eagle nest site. Therefore, impacts to the Golden Eagle nest site would not be significant.

Although raptor nests were not identified within the project site, the Cooper's Hawk, Red-shouldered Hawk, and the Red-tailed Hawk have been observed within the project area.

Impact Increased noise levels associated with temporary project construction would result in significant indirect impacts to nesting raptors (Cooper's Hawk, Red-shouldered Hawk, and Red-tailed Hawk) within 300-500 feet of the construction footprint, if construction were to occur during their breeding season (January 15 – July 15).

2.2.j

2.2.3.4 Edge Effects

Fragmentation of wildlife habitat that will occur as a result of the proposed project will reduce the quality of existing habitats for large mammalian predators, birds of prey, and their prey species. Habitat fragmentation occurs when a native vegetation community is not entirely altered or developed, but what remains has a diminished wildlife habitat value. Fragmentation increases the amount of edge. Native flora may encounter increased competition from weedy species, which in turn affects the value of the habitat for wildlife. Edges between natural systems and human land uses can amplify these detrimental edge effects, and add others such as increased incidences of disease and pollution risks.

Increases in artificial light may occur from development-induced edges. The presence of artificial nighttime light has implications for a number of species, including the potential to artificially increase predation rates on vulnerable species. Areas particularly vulnerable to artificial lighting include wildlife corridors, high quality wildlife habitats, and deciduous trees. Street lighting is not proposed for this project.

and lighting is restricted to a minimum of 100 feet from the wildlife corridor, but lighting associated with recreational facilities, pedestrian pathways, and buildings is expected. As outlined in EIR Section 1.1.1.2A, lighting shall be low-pressure sodium with cut-off shields (fully shielded/full cutoff lighting). Such shields eliminate the horizontal and upward projection of light and direct the light downward, eliminating excess illumination. With implementation of the conditions outlined EIR Section 1.1.1.2A, potential lighting impacts associated with an increase in development edge would not be significant.

Increases in artificial noise levels may occur from development-induced edges. Noise levels below 60 dBA are not considered a significant impact by the resource agencies (Appendix B). The project noise study determined that on-site traffic noise would result in levels below 50 dBA Leq at the property lines and under 60 dBA Leq at sensitive habitats, such as sage scrub and riparian forest. Therefore, potential edge effects from noise would not be significant.

Oak woodlands may be particularly sensitive to edge effects resulting from irrigation, soil compaction, filling, and paving in and around oaks. The results of these effects may include reduction of oxygen to the root zone, proliferation of soil-borne diseases, and impeded passage of moisture and gases within the root zone. ~~However, as outlined in EIR Section 1.1.1.2A, after trenching within the root zone the trees shall be carefully pruned to remove canopy material proportional to the roots damaged or lost.~~ With implementation of the conditions outlined in EIR Section 1.1.1.2A potential edge effects on oak woodlands would not be significant.

The project's potential for edge effect impacts to sensitive flora are limited to the effects of human intrusion into populations of Felt-leaved Monardella and Gander's Butterweed. As outlined in EIR Section 1.1.1.2A, signage and foot stakes are required that would avoid detrimental edge effects on these sensitive floral species. In addition, all individuals of these were identified within open space that will be subject to management. With implementation of the conditions outlined in EIR Section 1.1.1.2A potential edge effects on the Felt-leaved Monardella and Gander's Butterweed would not be significant.

The introduction of invasive species into the Camp biological open space areas could have long-term, serious effects on wildlife habitat. Similarly, the spread of pre-existing invasive species could impact the suitability of on-site habitats for wildlife. However, as outlined in EIR Section 1.1.1.2A, landscaping within the project area shall not include invasive exotic species. Therefore, potential edge effects from invasive plant species would not be significant.

2.2.3.5 Consistency with Applicable Habitat or Natural Community Plans

A. Multiple Species Conservation Program and Biological Mitigation Ordinance

The MSCP Subarea Plan Conformance Findings require that the project provide for the creation of significant blocks of habitat to reduce edge effects and maximize the ratio of surface area to the perimeter of conserved habitats.

Impact Although the proposed project would conserve large blocks of habitat, the ratio of surface
2.2.k area to the perimeter of conserved habitats can be reduced by relocating the Retreat Center

to the south as shown in Reduced Project Alternatives I and II. Therefore, the Applicant's Preferred project does not comply with the MSCP requirement to reduce edge effects and maximize the ratio of surface area to the perimeter of conserved habitats.

Impact 2.2.l The BMO requires impacts to Biological Resource Core Areas to be avoided to the maximum extent practicable by using design criteria that include locating development in areas that minimize impacts to habitat. The Applicant's Preferred project as proposed does not comply with this requirement. Construction of the Retreat Center access road under the Applicant's Preferred project would impact 0.05 acre of ACOE Non-wetland Waters of the U.S. that are County-jurisdictional wetlands. This impact can be avoided by relocating the Retreat Center to the south as shown in Reduced Project Alternative I and II. Consequently, impact-with-mitigation is not allowed. The Applicant's Preferred project as proposed fails to comply with the impact-avoidance design criteria in BMO, Article V, section A1, and the BMO findings necessary to approve the project cannot be made. This impact to wetlands is, therefore, significant and unmitigated.

Impact 2.2.m The BMO requires impacts to Biological Resource Core Areas to be avoided to the maximum extent practicable by using design criteria that include locating development in areas that minimize impacts to habitat. The Applicant's Preferred project as proposed does not comply with this requirement. Construction of the Retreat Center and the access road would impact 0.94 acre of Diegan Coastal Sage Scrub and 1.08 acres of Coastal Sage-Chaparral Scrub. These impacts can be avoided by relocating the Retreat Center to the south as shown in Reduced Project Alternative I and II. Consequently, impact-with-mitigation is not allowed. The project as proposed fails to comply with the impact-avoidance design criteria in BMO, Article V, section A1, and the BMO findings necessary to approve the project cannot be made. The impacts to Diegan Coastal Sage Scrub and Coastal Sage-Chaparral Scrub are, therefore, significant and unmitigated.

Wildlife Corridors

As previously discussed, the MSCP Subarea Plan and BMO contain design criteria for linkages and corridors. Since the project site does not contain any linkages, the criteria numbered 1, 2, 4 and 5, which are intended to protect linkages do not apply to the project. In addition, criteria number 11 addresses stepping-stone corridors and is not relevant to this project site; therefore, it does not apply to the project. Each remaining, applicable criterion is discussed with an evaluation of how it relates to the proposed project.

Criteria 3) Corridors with good vegetative and/or topographic cover will be protected.

The on-site corridor consists of riparian woodlands and upland habitats adjacent to the West Fork of San Vicente Creek. This local corridor had good vegetative and topographic cover preceding the Cedar Fire. The amount of vegetative cover within the corridor following the fire has substantially decreased, but in relation to the surrounding burned landscape it still has relatively good cover.

Under the ~~proposed project~~ Applicant's Preferred Project, the corridor would not be protected in its entirety. The proposed Retreat Center access road would bisect the corridor in a single location. As outlined in EIR Section 1.1.1.2 A, the project includes several design features to minimize impacts to the local corridor. However, construction of the Retreat Center access road would result in a reduction in vegetative cover and a potential barrier to movement for some species within the corridor. Reduced Project Alternative I would avoid this impact.

Criteria 6) *If a corridor is relatively long, it must be wide enough for animals to hide in during the day. Generally, wide linkages are better than narrow ones. If narrow corridors are unavoidable, they should be relatively short. If the minimum width of a corridor is 400 feet, it should be no longer than 500 feet. A width of greater than 1,000 feet is recommended for large mammals and birds. Corridors for bobcats, deer, and other large animals should reach rim-to-rim along drainages, especially if the topography is steep.*

The corridor associated with the West Fork of San Vicente varies in length as it passes through and off the site. Under existing conditions it's boundary may be defined by the Camp access road to the south and steep topography with increasing shrub density to the north. To the west, the corridor continues along the West Fork as the existing Camp access road turns southward and the corridor is then defined (and limited) solely by vegetative cover and topography. Aside from the Camp access road, all adjacent lands are currently vacant/open space.

The effective corridor width ranges from approximately 110 feet to over 200 within the property; however, aside from the direct access road there are no restrictions or alterations within the corridor and rim-to-rim corridor width exceeds 1,000 feet. The primary pinch point is where the corridor enters the site on the east, through a large box culvert under Mussey Grade Road. Downstream (southeast) of the site the corridor parallels Mussey Grade Road and maintains a width of approximately 100 feet, bound to the west by the road and to the east by residential development. On the western side of the site, the corridor effectively dissipates, as the vegetation is dominated by monotypic chaparral and the drainage becomes narrower and steeper, but no land use constraints exist. The total corridor length on-site is approximately 4,900 feet. Under the ~~proposed project~~ Applicant's Preferred Project the corridor would be impacted by a road crossing for the proposed Retreat Center. The proposed encroachment would include the removal of riparian forest and upland habitats within the footprint of an access road proposed to cross the West Fork of San Vicente Creek. Therefore, the proposed project would not meet the 1,000-foot guideline. Reduced Project Alternative I would avoid this impact.

Criteria 7) *Visual continuity (i.e., long lines-of-site) will be provided within movement corridors. This makes it more likely that animals will keep moving through it. Developments along the rim of a canyon used as a corridor should be set back from the canyon rim and screened to minimize their visual impact.*

The on-site corridor is a typical local canyon corridor, which supports riparian vegetation on the eastern half of the site and upland chaparral dominated habitat on the west. The natural topography includes curves and visual continuity varies as habitats change through the corridor, but there are no existing gaps in native vegetation or human-induced visual impacts. Under the ~~proposed project~~ Applicant's Preferred

Project visual continuity would be interrupted by the proposed Retreat Center access road, which would bisect the corridor. Reduced Project Alternative I would avoid this impact.

Criteria 8) *Corridors with low levels of human disturbance, especially at night, will be selected. This includes maintaining low noise levels and limiting artificial lighting.*

As previously discussed, the project would not increase noise or lighting within the riparian areas of the project site. However, traffic will increase on the Camp access road off Mussey Grade Road, increasing noise and automobile lighting within the corridor. This increase is expected to be minimal with regard to times when the corridor would receive the bulk of its use by wildlife (early morning and night).

Criteria 9) *Barriers, such as roads, will be minimized. Roads that cross corridors should have ten foot high fencing that channels wildlife to underpasses located away from interchanges. The length-to-width ratio for wildlife underpasses is less than two, although this restriction can be relaxed for underpasses with a height of greater than 30 feet.*

The ~~proposed project~~ Applicant's Preferred Project includes one crossing (barrier) of the corridor, the retreat center access road. The roadway would incorporate an underpass composed of two 36-inch diameter box culverts. The Retreat Center access road has been designed to the narrowest width (24 feet) allowed by the County to minimize movement barriers and maximize the length to width ratio of the underpass. However, even with the combined width of the two box culverts, the length to width ratio is 4:1, which exceeds the criteria of less than 2:1 for underpasses less than 30 feet high. Reduced Project Alternative I would avoid this impact.

Criteria 10) *Where possible at wildlife crossings, road bridges for vehicular traffic rather than tunnels for wildlife use will be employed. Box culverts will only be used when they can achieve the wildlife crossing/movement goals for a specific location. Crossings will be designed as follows: sound insulation materials will be provided; the substrate will be left in a natural condition, and vegetated with native vegetation if possible; a line-of-site to the other end will be provided; and if necessary, low-level illumination will be installed in the tunnel.*

This criterion establishes desired design standards for road crossings in areas with wildlife corridors. It includes the qualifier “where possible” which implies that it is not absolutely required; however, per the DPLU staff, “every effort should be made to meet these standards”. In the location of the Retreat Center access road, under the Applicant's Preferred Project, a bridge is not feasible. The drainage here is low and the canyon is relatively open. Attempts to bridge the creek or corridor would result in increased corridor encroachment. Thus, box culverts have been included within the roadway design (EIR Section 1.1.1.2A). These culverts would permit movement of medium sized mammals. The culverts may permit movement of Coyotes and Bobcats, but these species are known to cross at grade even where underpasses exist. Under the proposed project, natural vegetation would persist surrounding the proposed crossing and the box culverts would permit a line of sight to the other end. Reduced Project Alternative I would avoid this impact.

Impact 2.2.n As outlined above, the proposed project, specifically the location of the Retreat Center access road, fails to comply with applicable BMO design criteria for corridors, and this impact is significant and unmitigated. However, under the Reduced Project Alternative I and II, this impact is eliminated by relocating the Retreat Center to the south.

B. Resource Protection Ordinance

Sensitive Habitat Lands

Impact 2.2.o As previously stated, the portion of the site that would be impacted by the Retreat Center access road under the Applicant's Preferred Project is considered a wildlife corridor, and thus, qualifies as a sensitive habitat land pursuant to RPO. Development of this road within sensitive habitat land is not allowed under the RPO, unless all feasible measures necessary to protect and preserve the sensitive habitat lands are required as a condition of permit approval and where mitigation provides an equal or greater benefit to the affected species. This impact can be avoided by relocating the Retreat Center to the south as shown in Reduced Project Alternatives I and II. The reduced alternatives present a biologically superior location for the Retreat Center, which does not require impacts to wetlands, wetland buffers, and sensitive habitat lands (wildlife corridor). Consequently, the ~~proposed~~ Applicant's Preferred project is not consistent with RPO Section 86.603(a).

Wetlands

There are several minor drainage features, most of which are heavily disturbed and unvegetated, within the central portion of the property. Many of these drainages are located within or very near existing campground development. As previously discussed, the project would result in 0.17-acre impact to RPO-defined wetlands. Of the total 0.17-acre of RPO-defined wetlands that the project would impact, impacts to 0.12 acre would result from foot traffic associated with the recreational use of the site. It is important to note that even if the existing camp facilities were not expanded, the continued use of the site as a campground would result in continued impacts from recreational foot traffic to some of the minor drainages located throughout the project site. The RPO allows recreational uses in wetlands and wetland buffers if the use does not harm the natural ecosystem (RPO Section 86.604). Foot traffic through the central Camp area is not expected to alter the natural ecosystem. The inter-facility paths on-site are located within Non-native Grassland habitat which is degraded due to existing human foot traffic and mowing. Continued and increased use of these paths would not significantly alter the existing habitat nor would it affect resident or transient wildlife. Where drainages cross the central Camp area between facilities, these drainages are, for the most part, swale-like and support non-wetland associated plants. Table 4 provided in the biological technical report (EIR Appendix B) identifies the buffer widths for on-site wetlands.

Although the proposed access road has been designed to be the narrowest allowed by the County and Ramona Fire Department, the access road would impact approximately 0.05 acre of RPO-defined wetlands. Impacts to wetlands would be minimized and offset by removal and revegetation of the existing

wetland crossing. However, per the RPO, the proposed access road is not an allowable use in an RPO wetland.

Impact 2.2.p The Retreat Center access road would impact 0.05 acre of RPO wetlands. Therefore, the project as proposed fails to comply with RPO, Section IV 1, and this impact is significant and unmitigated. However, under the Reduced Project Alternative I and II, this impact is eliminated by relocating the Retreat Center to the south.

2.2.4 Mitigation Measures

The following mitigation measures will reduce the impacts to below a level of significance.

2.2.4.1 Vegetation Communities

A. Tier I Habitats

1. *Coast Live Oak Woodlands and Southern Coast Live Oak Riparian Forest*

The proposed project would impact 7.29 acres of Coast Live Oak Woodlands and two acres of Southern Coast Live Oak Riparian Forest. The BMO requires a 2:1 mitigation ratio as the mitigation site (on-site open space) meets the criteria for a BRCA. Based on the total oak woodland impacts for the proposed project, 18.58 acres of oak woodlands (Tier 1 habitats) would be required to mitigate impacts to a level below significant (Tables 2.2-1 and 2.2-2).

MM 2.2.a & b Within the proposed dedicated open space easement, 18.89 acres of oak woodland (15.05 acres Southern Coast Live Oak Riparian Forest, and 3.84 acres Coast Live Oak Woodland) shall be preserved.

Reduced Project Alternative I Mitigation:

MM 2.2.a & b Within the proposed dedicated open space easement, 29.35 acres of oak woodland (25.67 acres Southern Coast Live Oak Riparian Forest, and 3.68 acres Coast Live Oak Woodland) shall be preserved.

2. *Non-Wetland Waters of the U.S.*

The proposed project would impact 0.17 acre of Non-Wetland Water of the U.S. The BMO requires a 2:1 mitigation ratio (Table 2.2-1). Creation would occur in the proposed dedicated open space easement in the northern portion of the project site within Non-Native Grassland habitat adjacent to riparian areas associated with the West Fork of San Vicente Creek (Figures 2.2-1 through 2.2-11). A conceptual wetland restoration plan has been submitted to the County. The plan includes specifications, planting plans, maintenance and monitoring actions, and success criteria. County approval of the conceptual wetland restoration plan is required prior to approval of the Major Use Permit associated with the proposed project.

- MM 2.2.c** Within the proposed dedicated open space easement in the northern portion of the site within the Non-Native Grassland habitat adjacent to riparian areas associated with the West Fork of the San Vicente Creek, 0.39 acre of wetland habitat shall be created in accordance with a wetland restoration plan approved by the County.

Reduced Project Alternative I Mitigation:

- MM 2.2.c** Within the proposed dedicated open space easement in the northern portion of the site within the Non-Native Grassland habitat adjacent to riparian areas associated with the West Fork of the San Vicente Creek, 0.39 acre of wetland habitat shall be created in accordance with a wetland restoration plan approved by the County.

B. Tier II Habitats

1. *Diegan Coastal Sage Scrub and Coastal Sage-Chaparral Scrub*

The proposed project would impact 13.12 acres of Diegan Coastal Sage Scrub and 9.26 acres of Coastal Sage-Chaparral Scrub. The BMO requires a 1.5:1 mitigation ratio for impacts to these vegetation communities. As such, preservation of 33.57 acres of on-site sage scrub would reduce this impact to below a level of significance.

- MM 2.2.d & e** Within the proposed dedicated open space easement 35.36 acres of sage scrub, 6.46 acres of Mafic Southern Mixed Chaparral [a Tier I habitat], 0.05 acre of Diegan Coastal Sage Scrub, and 28.85 acres of Coastal Sage-Chaparral Scrub) shall be preserved.

Reduced Project Alternative I Mitigation:

- MM 2.2.d & e** Within the proposed dedicated open space easement 41.58 acres of sage scrub, 6.42 acres of Mafic Southern Mixed Chaparral [a Tier I habitat], 4.65 acres of Diegan Coastal Sage Scrub, and 30.51 acres of Coastal Sage-Chaparral Scrub) shall be preserved.

Although other areas of Diegan Coastal Sage Scrub or Coastal Sage-Chaparral Scrub could be added to the proposed open space in lieu of up-tiering to use Mafic Southern Mixed Chaparral, the areas are not preferable due to their location adjacent to proposed development, isolation through existing disturbance, and/or disjunct location relative to the proposed open space easement. The Mafic Southern Mixed Chaparral is expected to have similar biological values and functions to Coastal Sage-Chaparral Scrub and would generally be used by the same suite of species.

C. Tier III Habitats

1. *Southern Mixed Chaparral*

The proposed project would impact 37.36 acres of Southern Mixed Chaparral. The BMO requires a 1:1 mitigation ratio for impacts to Southern Mixed Chaparral. As such, preservation of 37.36 acres of Southern Mixed Chaparral would reduce this impact to below a level of significance.

2. *Non-native Grasslands*

The proposed project would impact 12.45 acres of Non-native Grasslands. The BMO, requires a 0.5:1 mitigation ratio for impacts to Non-native Grassland. As such, preservation of 6.32 acres of Non-native Grassland would reduce this impact to below a level of significance.

MM Within the proposed dedicated open space easement, 223.42 acres of Tier III habitat (223.19
2.2.f & g acres of Southern Mixed Chaparral and 0.23 acre of Non-native Grassland) shall be preserved.

Reduced Project Alternative I Mitigation:

MM Within the proposed dedicated open space easement, 319.21 acres of Tier III habitat (318.40
2.2.f & g acres of Southern Mixed Chaparral and 0.81 acre of Non-native Grassland) shall be preserved.

By preserving 223.42 acres of Tier III habitat comprised of 223.19 acres of Southern Mixed Chaparral and 0.36 acres of Non-native Grassland in the open space easement, impacts to Tier III habitats would be reduced to less than significant.

2.2.4.2 Sensitive Plant Species

The proposed project would impact 38 Englemann Oaks, nearly all of which are located within the larger Coast Live Oak habitat.

MM Englemann Oaks (Group D) shall be preserved through on-site preservation of oak woodlands
2.2.h in the proposed dedicated open space easement.

Reduced Project Alternative I Mitigation:

MM Englemann Oaks (Group D) shall be preserved through on-site preservation of oak woodlands
2.2.h in the proposed dedicated open space easement.

This mitigation approach complies with the BMO's direction that impacts to Englemann Oak species in Groups C and D be protected using habitat-based mitigation. With on-site preservation of Englemann Oaks in accordance with the BMO, impacts to this species would be reduced to below a level of significance.

2.2.4.3 Sensitive Wildlife Species

MM Construction activities shall be prohibited during the California gnatcatcher breeding season
2.2.i (March 1 - August 15) unless nest monitoring is conducted by a qualified biologist and results indicated the absence of active nests or the completion of the breeding season.

MM Prior to construction within ~~300~~ 500 feet of potential raptor nesting habitat (i.e., riparian or
2.2.j woodland habitat) to be conducted during the raptor breeding season (January 15 through ~~July~~ August 15), the area within ~~300~~ 500 feet of the construction footprint shall be surveyed for the presence of nesting raptors. If active nests are present, construction within ~~300~~ 500 feet of the active nest will be delayed until the nest is abandoned.

To avoid any direct and indirect impacts to raptors and/or any migratory birds, grubbing and clearing of vegetation that may support active nests and construction activities adjacent to nesting habitat, should occur outside of the breeding season (January 15 to August 15). If removal of habitat and/or construction activities is necessary adjacent to nesting habitat during the breeding season, the applicant shall retain a County-approved biologist to conduct a pre-construction survey to determine the presence of non-listed nesting migratory birds on or within 100-feet of the construction area, Federally- or State-listed birds (e.g., coastal California gnatcatcher, least Bell's Vireo) on or within 300-feet of the construction area and nesting raptors within 500-feet of the construction area. The preconstruction survey must be conducted within 10 calendar days prior to the start of construction. The results of the survey must be submitted to the County for review and approval prior to initiating any construction activities. If nesting birds are detected by the County-approved biologist, the following buffers should be established: 1) no work within 100 feet of a non-listed nesting migratory bird nest, 2) no work within 300 feet of a listed bird nest, and 3) no work within 500 feet of a raptor nest. However, the County may reduce these buffer widths depending on site-specific conditions (e.g., the width and type of screening vegetation between the nest and proposed activity) or the existing ambient level of activity (e.g., existing level of human activity within the buffer distance). If construction must take place within the recommended buffer widths above, the project applicant should contact the County to determine the appropriate buffer.

A bio-monitor shall be present on-site during all initial grubbing and clearing of vegetation to ensure that perimeter construction fencing is being maintained and to minimize the likelihood that nests containing eggs or chicks are abandoned or fail due to construction activity. A bio-monitor shall also perform periodic inspections of the construction site during all major grading to ensure that impacts to sensitive plants and wildlife are minimized. These inspections should take place once or twice a week, as defined by the County, depending on the sensitivity of the resources. The bio-monitor shall send weekly reports to the County and shall notify both the County and the Department immediately if clearing is done outside of the permitted project footprint.

Reduced Project Alternative I Mitigation:

MM Construction activities shall be prohibited during the California gnatcatcher breeding season
2.2.i (March 1 - August 15) unless nest monitoring is conducted by a qualified biologist and results
indicated the absence of active nests or the completion of the breeding season.

MM Prior to construction within 500 feet of potential raptor nesting habitat (i.e., riparian or
2.2.j woodland habitat) to be conducted during the raptor breeding season (January 15 through
July 15), the area within 500 feet of the construction footprint shall be surveyed for the
presence of nesting raptors. If active nests are present, construction within 500 feet of the
active nest will be delayed until the nest is abandoned.

To avoid any direct and indirect impacts to raptors and/or any migratory birds, grubbing and clearing of vegetation that may support active nests and construction activities adjacent to nesting habitat, should occur outside of the breeding season (January 15 to August 15). If removal of habitat and/or construction activities is necessary adjacent to nesting habitat during the breeding season, the applicant shall retain a County-approved biologist to conduct a pre-construction survey to determine the presence of non-listed nesting migratory birds on or within 100-feet of the construction area, Federally- or State-listed birds (e.g., coastal California gnatcatcher, least Bell's Vireo) on or within 300-feet of the construction area and nesting raptors within 500-feet of the construction area. The preconstruction survey must be conducted within 10 calendar days prior to the start of construction. The results of the survey must be submitted to the County for review and approval prior to initiating any construction activities. If nesting birds are detected by the County-approved biologist, the following buffers should be established: 1) no work within 100 feet of a non-listed nesting migratory bird nest, 2) no work within 300 feet of a listed bird nest, and 3) no work within 500 feet of a raptor nest. However, the County may reduce these buffer widths depending on site-specific conditions (e.g., the width and type of screening vegetation between the nest and proposed activity) or the existing ambient level of activity (e.g., existing level of human activity within the buffer distance). If construction must take place within the recommended buffer widths above, the project applicant should contact the County to determine the appropriate buffer.

A bio-monitor shall be present on-site during all initial grubbing and clearing of vegetation to ensure that perimeter construction fencing is being maintained and to minimize the likelihood that nests containing eggs or chicks are abandoned or fail due to construction activity. A bio-monitor shall also perform periodic inspections of the construction site during all major grading to ensure that impacts to sensitive plants and wildlife are minimized. These inspections should take place once or twice a week, as defined by the County, depending on the sensitivity of the resources. The bio-monitor shall send weekly reports to the County and shall notify both the County and the Department immediately if clearing is done outside of the permitted project footprint.

2.2.5 Conclusions

Development of Reduced Project Alternative I would impact 1.36 acres of Southern Coast Live Oak Riparian Forest. The open space easement would preserve, 29.35 acres of oak woodland (25.67 acres of southern coast live oak riparian forest and 3.68 acres of coast live oak woodland). Implementation of this mitigation measure avoids or substantially reduces the significant effect because it would preserve oak woodlands, including southern coast live oak riparian forest, at a minimum ratio of 2:1 (preserved areas to impacted areas) in accordance with the Biological Mitigation Ordinance (BMO). The mitigation ratios outlined in Attachment M of the BMO were developed based on NCCP Guidelines and the Wildlife Agencies have reviewed and approved these mitigation ratios. Additionally, these standard ratios have been applied to projects within the County of San Diego since DPLU developed its first Biological Report Guidelines in the mid 1990s. Coast live oak riparian forest is in the group of the most rare and sensitive vegetation types (Tier I) and a mitigation ratio of 2:1 was assigned (for impacts and mitigation occurring

within a Biological Resource Core Area). This ratio is effective because it factors in the importance of preserving rare and sensitive vegetation types and results in maintaining the regional biodiversity. The 29.35 acres to be set aside in the open space easement is more land than is required by a 2:1 mitigation ratio. Implementation of this mitigation measure would reduce Impact 2.2a to below a level of significance.

Development of Reduced Project Alternative I would impact 7.96 acres of Coast Live Oak Woodlands. The open space easement would preserve 29.35 acres of oak woodland (25.67 acres of southern coast live oak riparian forest and 3.68 acres of coast live oak woodland). Implementation of this mitigation measure avoids or substantially reduces the significant effect because it would preserve oak woodlands, including coast live oak woodland, at a minimum ratio of 2:1 in accordance with the Biological Mitigation Ordinance (BMO). The mitigation ratios outlined in Attachment M of the BMO were developed based on NCCP Guidelines and the Wildlife Agencies have reviewed and approved these mitigation ratios. Additionally, these standard ratios have been applied to projects within the County of San Diego since DPLU developed its first Biological Report Guidelines in the mid 1990s. Coast live oak woodland is in the group of the most rare and sensitive vegetation types (Tier I) and a mitigation ratio of 2:1 was assigned (for impacts and mitigation occurring within a Biological Resource Core Area). This ratio is effective because it factors in the importance of preserving rare and sensitive vegetation types and maintaining the regional biodiversity. The 29.35 acres to be set aside in the open space easement is more land than is required by a 2:1 mitigation ratio. Implementation of this mitigation measure would reduce Impact 2.2b to below a level of significance.

Development of Reduced Project Alternative I would impact 0.03 acre of ACOE Non-wetland Waters of the U.S. that are County-jurisdictional (RPO) wetlands. Wetland impacts would be mitigated by creating .039 acre of wetland habitat in accordance with a wetland restoration plan approved by the County. The site for the wetlands to be created would be located in the northern portion of the site within the Non-Native Grassland habitat adjacent to riparian areas associated with the West Fork of the San Vicente Creek. Implementation of a wetland restoration plan would ensure no net loss of federal non-wetland waters/County RPO wetlands (and their functions and values) through on-site creation of wetland habitat at a minimum ratio of 3:1 (preserved areas to impacted areas). This ratio is consistent with the ratios in the BMO, which were developed based on NCCP Guidelines and which were reviewed and approved by the Wildlife Agencies.

Development of Reduced Project Alternative I would impact 12.29 acres of Diegan Coastal Sage Scrub. The open space easement would preserve 41.58 acres of sage scrub (6.42 acres of Mafic Southern Mixed Chaparral [a Tier I habitat], 4.65 acres of Diegan Coastal Sage Scrub, and 30.51 acres of Coastal Sage-Chaparral Scrub). Implementation of this mitigation measure avoids or substantially reduces the significant effect because it would preserve sage scrub, including Diegan coastal sage scrub, at a minimum ratio of 1.5:1 (preserved areas to impacted areas) in accordance with the BMO. The mitigation ratios outlined in Attachment M of the BMO were developed based on NCCP Guidelines and the Wildlife Agencies have reviewed and approved these mitigation ratios. Additionally, these standard ratios have been applied to projects within the County of San Diego since DPLU developed its first Biological Report Guidelines in the mid 1990s. Diegan coastal sage scrub is a Tier II vegetation community and provides potentially suitable habitat for a number of sensitive species, including the coastal California gnatcatcher. Therefore, a

mitigation ratio of 1.5:1 was assigned (for impacts and mitigation occurring within a Biological Resource Core Area). This ratio is effective because it factors in the importance of preserving rare and sensitive vegetation types, including habitat for the coastal California gnatcatcher, and maintaining the regional biodiversity. As the project site does not include enough Diegan coastal sage scrub (Tier II) to provide in-kind mitigation at a ratio of 1.5:1, the remaining required mitigation would be fulfilled through on-site preservation of 30.51 acres of coastal sage-chaparral scrub (Tier II) and 6.42 acres of mafic southern mixed chaparral (Tier I). This is appropriate because these scrub habitats on site are the same, or high tier as the impacted habitat and all provide similar functions and values. In addition, the 41.58 acres to be set aside in the open space easement is more land than is required by a 1.5:1 mitigation ratio. Implementation of this mitigation measure would reduce Impact 2.2.d to below a level of significance.

Development of Reduced Project Alternative I would impact 8.18 acres of Coastal Sage-Chaparral Scrub. The open space easement would preserve 41.58 acres of sage scrub (6.42 acres of Mafic Southern Mixed Chaparral [a Tier I habitat], 4.65 acres of Diegan Coastal Sage Scrub, and 30.51 acres of Coastal Sage-Chaparral Scrub). Implementation of this mitigation measure avoids or substantially reduces the significant effect because it would preserve sage scrub, including coastal sage-chaparral scrub, at a minimum ratio of 1.5:1 (preserved areas to impacted areas) in accordance with the BMO. The mitigation ratios outlined in Attachment M of the BMO were developed based on NCCP Guidelines and the Wildlife Agencies have reviewed and approved these mitigation ratios. Additionally, these standard ratios have been applied to projects within the County of San Diego since DPLU developed its first Biological Report Guidelines in the mid 1990s. Coastal sage-chaparral scrub is a Tier II vegetation community; therefore, a mitigation ratio of 1.5:1 was assigned (for impacts and mitigation occurring within a Biological Resource Core Area). This ratio is effective because it factors in the importance of preserving rare and sensitive vegetation types and results in maintaining the regional biodiversity. The 41.58 acres to be set aside in the open space easement is more land than is required by a 1.5:1 mitigation ratio. Implementation of this mitigation measure would reduce Impact 2.2.e to below a level of significance.

Development of Reduced Project Alternative I would impact 36.73 acres of Southern Mixed Chaparral. The open space easement would preserve 319.21 acres of Tier III habitat (318.40 acres of Southern Mixed Chaparral and 0.81 acre of Non-native Grassland). Implementation of this mitigation measure avoids or substantially reduces the significant effect because it would preserve Tier III habitat, including southern mixed chaparral, at a minimum ratio of 1:1 (preserved areas to impacted areas) in accordance with the BMO. The mitigation ratios outlined in Attachment M of the BMO were developed based on NCCP Guidelines and the Wildlife Agencies have reviewed and approved these mitigation ratios. Additionally, these standard ratios have been applied to projects within the County of San Diego since DPLU developed its first Biological Report Guidelines in the mid 1990s. Southern mixed chaparral is a Tier III vegetation community; therefore, a mitigation ratio of 1:1 was assigned (for impacts and mitigation occurring within a Biological Resource Core Area). This ratio is effective because it factors in the importance of preserving rare and sensitive vegetation types and maintaining the regional biodiversity. The 319.21 acres to be set aside in the open space easement is more land than is required by a 1:1 mitigation ratio. Implementation of this mitigation measure would reduce Impact 2.2.f to below a level of significance.

Development of Reduced Project Alternative I would impact 1.41 acres of Non-native Grasslands. The open space easement would preserve 319.21 acres of Tier III habitat (318.40 acres of Southern Mixed Chaparral and 0.81 acre of Non-native Grassland). Implementation of this mitigation measure avoids or substantially reduces the significant effect because it would preserve Tier III habitat, including non-native grassland, at a minimum ratio of 1:1 (preserved areas to impacted areas) in accordance with the BMO. The mitigation ratios outlined in Attachment M of the BMO were developed based on NCCP Guidelines and the Wildlife Agencies have reviewed and approved these mitigation ratios. Additionally, these standard ratios have been applied to projects within the County of San Diego since DPLU developed its first Biological Report Guidelines in the mid 1990s. Non-native grassland is a Tier III vegetation community and was assigned a mitigation ratio of 0.5:1. The 319.21 acres of Tier III habitat to be set aside in the open space easement is more land than is required per the mitigation ratios in the BMO. Preservation of the 319.21 acres is effective mitigation because it includes an overall mitigation ratio of more than 1:1, which factors in the importance of preserving rare and sensitive vegetation types, preserving the functions and values of this naturalized vegetation community, and maintaining the regional biodiversity. Implementation of this mitigation measure would reduce Impact 2.2.g to below a level of significance.

Furthermore, the open space easement would comply with the BMO's Preserve Design Criteria (goals and criteria#4). The open space configuration creates significant blocks of preserved habitat to reduce edge effects and to maximize the ratio of area to the perimeter of conserved habitats, while providing connectivity with off-site preserve lands, ensuring compliance with the MSCP Preserve Design Criteria. The open space configuration maximizes the habitat structural diversity of conserved habitat areas. The easement configuration also conserves more conserved habitat than is required for habitat-based mitigation. Therefore, the mitigation measure would reduce the impact to this vegetation community to a less than significant level.

Development of Reduced Project Alternative I would result in significant direct and indirect impacts to 32 Engelmann Oaks. Engelmann Oaks (Group D) would be preserved through on-site preservation of oak woodlands at a ratio of 3:1 in the open space easement. The 29.35 acres of oak woodland to be preserved in the open space easement includes a number of individual Engelmann oaks. Preservation of the oak woodland within the on-site open space easement would mitigate for loss of Engelmann oaks by increasing the potential recruitment of new oak trees in the easement area. "Recruitment" means providing conditions that allow oaks to grow from seeds dropped by mature trees. Preservation of 29.35 acres of oak woodland (a 3:1 ratio) within the proposed dedicated open space, would reduce impact 2.2.h to below a level of significance.

Increased noise levels associated with temporary project construction could result in significant indirect impacts to the California Gnatcatcher. Construction activities shall be prohibited during the California gnatcatcher breeding season (March 1 – August 15) unless nest monitoring is conducted by a qualified biologist and results indicated the absence of active nests or the completion of the breeding season. Breeding California gnatcatchers can be significantly affected by short-term construction-related noise, which can result in the disruption of foraging, nesting, and reproductive activities. This mitigation measure would reduce potential noise impacts to the California gnatcatcher to less than significant by prohibiting construction activities during the breeding season for this species unless nest monitoring is conducted and

results in the identification of no active nests or a determination that the breeding season for this species is complete.

Increased noise levels associated with temporary project construction would result in significant indirect impacts to nesting raptors (Cooper's Hawk, Red-Shouldered Hawk, and Red-Tailed Hawk) within 300 feet of the construction footprint, if construction were to occur during their breeding season (January 15 – July 15). Prior to construction within 300 feet of potential raptor nesting habitat (i.e., riparian or woodland habitat) to be conducted during the raptor breeding season (January 15 – July 15), the area within 300 feet of the construction footprint shall be surveyed for the presence of nesting raptors. If active nests are present, construction within 300 feet of the active nest would be delayed until the nest is abandoned. Breeding raptors (including the Cooper's hawk, red-shouldered hawk, and red-tailed hawk) can be significantly affected by short-term construction-related noise, which can result in the disruption of foraging, nesting, and reproductive activities.

Implementation of these mitigation measures would avoid potentially significant impacts on nesting raptors because the areas that contain these species would be protected during nesting and breeding seasons. There are three levels of mitigation to avoid potentially significant impacts on nesting raptors: the primary measure being avoidance of grading and construction activities during the bird breeding season (January 15 to July 15).

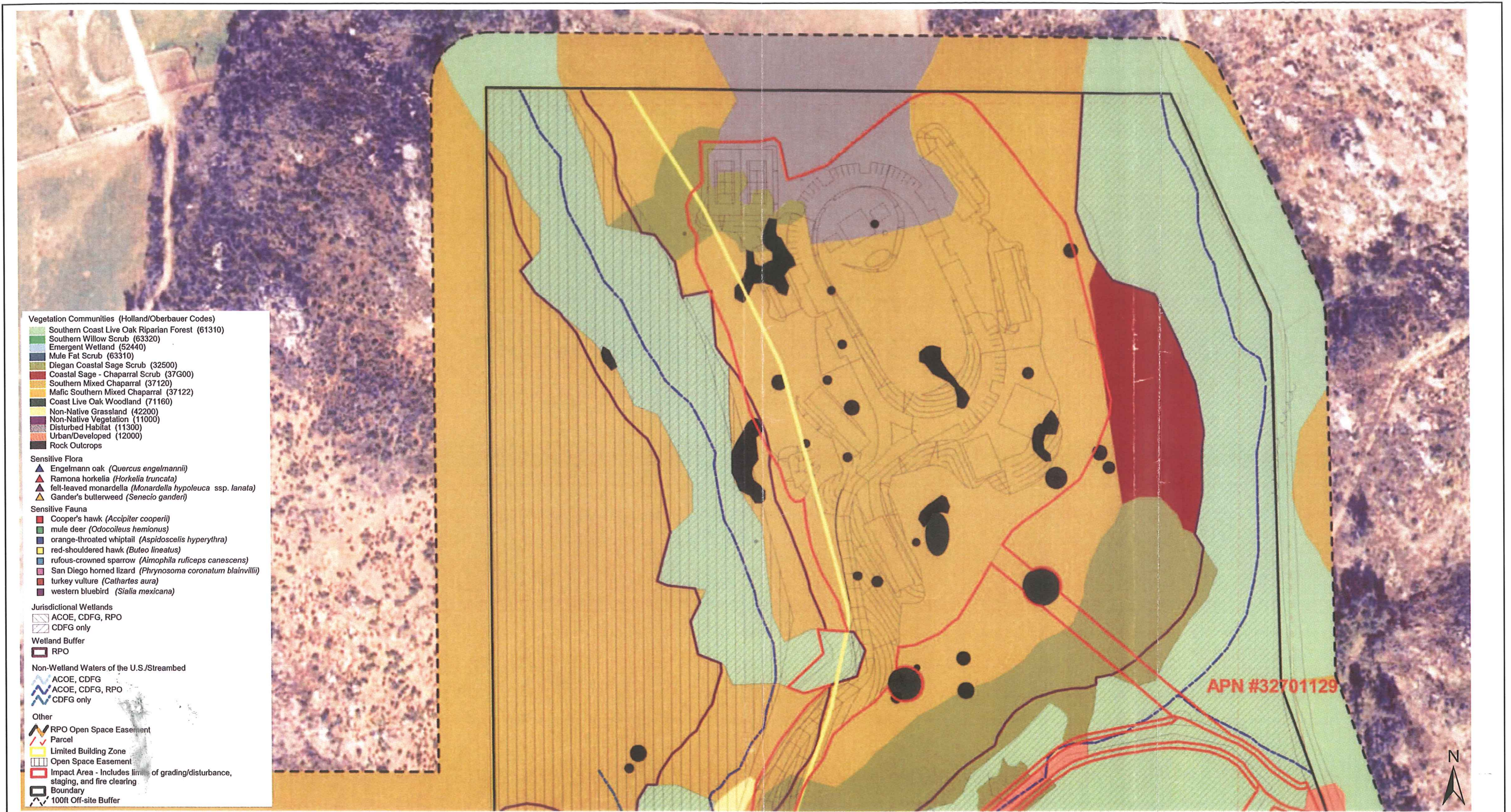
If construction is necessary during this time, a preconstruction survey, conducted by a qualified biologist, prior to clearing, grading, building, demolition, or geotechnical drilling, would identify any nesting raptors on-site. Any nests identified would be flagged and that area protected from impacts until the birds have fledged.

Finally, before construction can occur within 500 feet of raptor nests, measures must be implemented to minimize noise and disturbance. These measures include Best Management Practices (BMPs), consistent with the project SWMP, to control flow of runoff into areas containing sensitive biological resources and fencing around the areas occupied by nesting raptors.

Noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60dBA hourly Leq and/or the construction activities shall be suspended. This measure is not required if noise studies confirm that construction noise levels are below 60dBA hourly Leq along the edge of adjacent habitat.

With implementation of the proposed biological mitigation measures, the project would not substantially affect an endangered, rare, or threatened species or the habitat of such a species; interfere substantially with the movement of any resident or migratory fish or wildlife species; nor substantially diminish habitat for fish, wildlife or plants. All physical project-related impacts to biological resources can be mitigated to below a level of significance by achieving the necessary habitat based mitigation by preservation in an open space easement on-site. However, as explained above, the BMO does not allow impact-with-mitigation if development can be located to "minimize" impacts to habitat. The proposed location of the Retreat Center and associated access road conflict with the BMO because the Retreat Center can be relocated to the south to avoid impacts to habitat. Likewise, the RPO does not allow impact-with-

mitigation, but strictly limits uses allowed in wetlands. Although minor impacts due to foot traffic are allowed under the RPO, the road for the proposed Retreat Center conflicts with the RPO because RPO the proposed access road is not an allowable use in an RPO wetland. The conflict with the RPO can be avoided by relocating the Retreat Center to the south. Because of these conflicts with the BMO and RPO, impacts to biological resources are significant and unmitigated. These impacts are eliminated under the Reduced Project Alternatives that relocate the Retreat Center to the south.



SOURCE: Merkel & Associates, 2006

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Salvation Army Divisional Camp and Retreat Biological Resource Map - Proposed Project

FIGURE
2.2-1



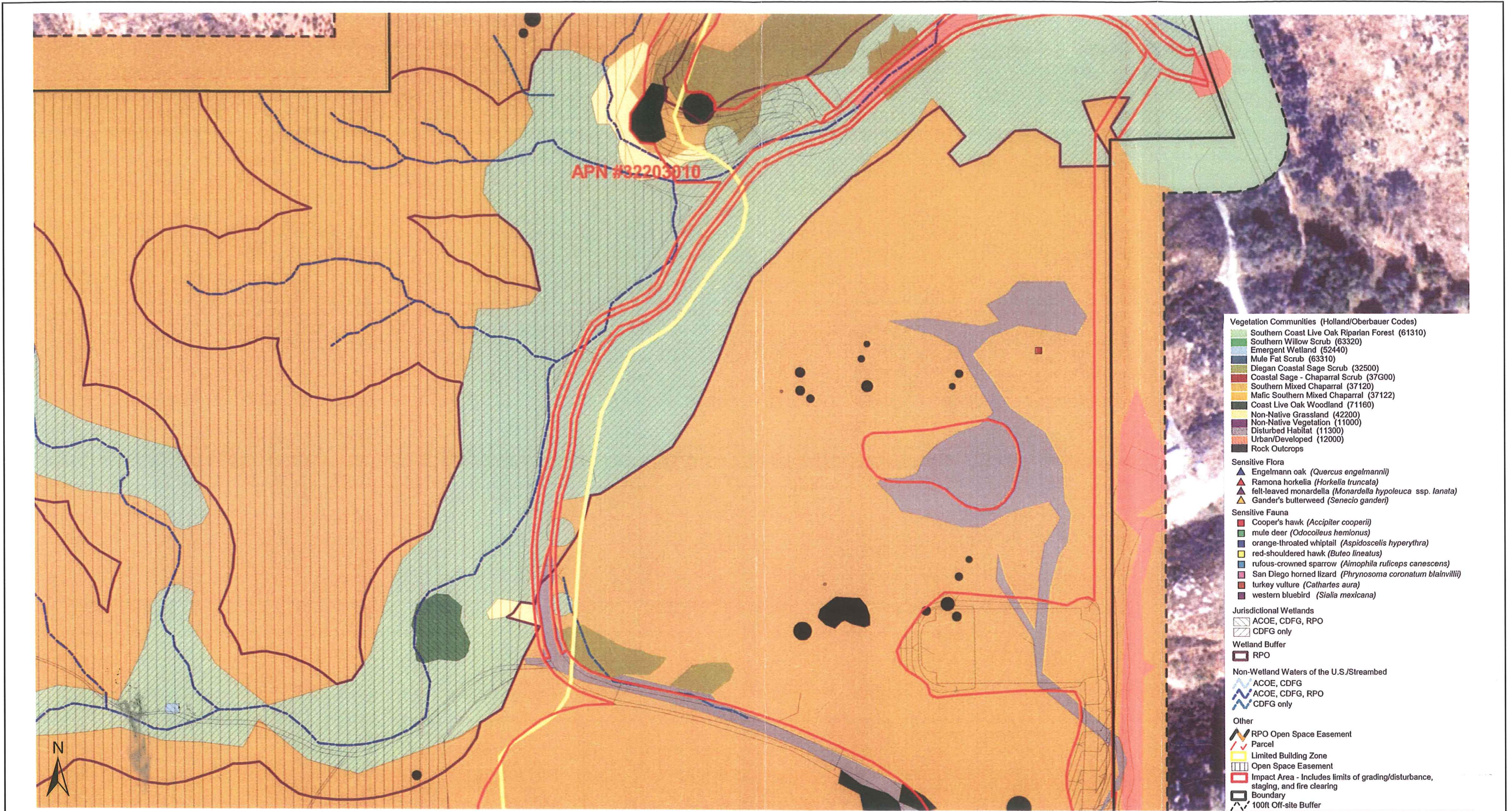
SOURCE: Merkel & Associates, 2006

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Salvation Army Divisional Camp and Retreat Biological Resource Map - Proposed Project

FIGURE
2.2-2



SOURCE: Merkel & Associates, 2006

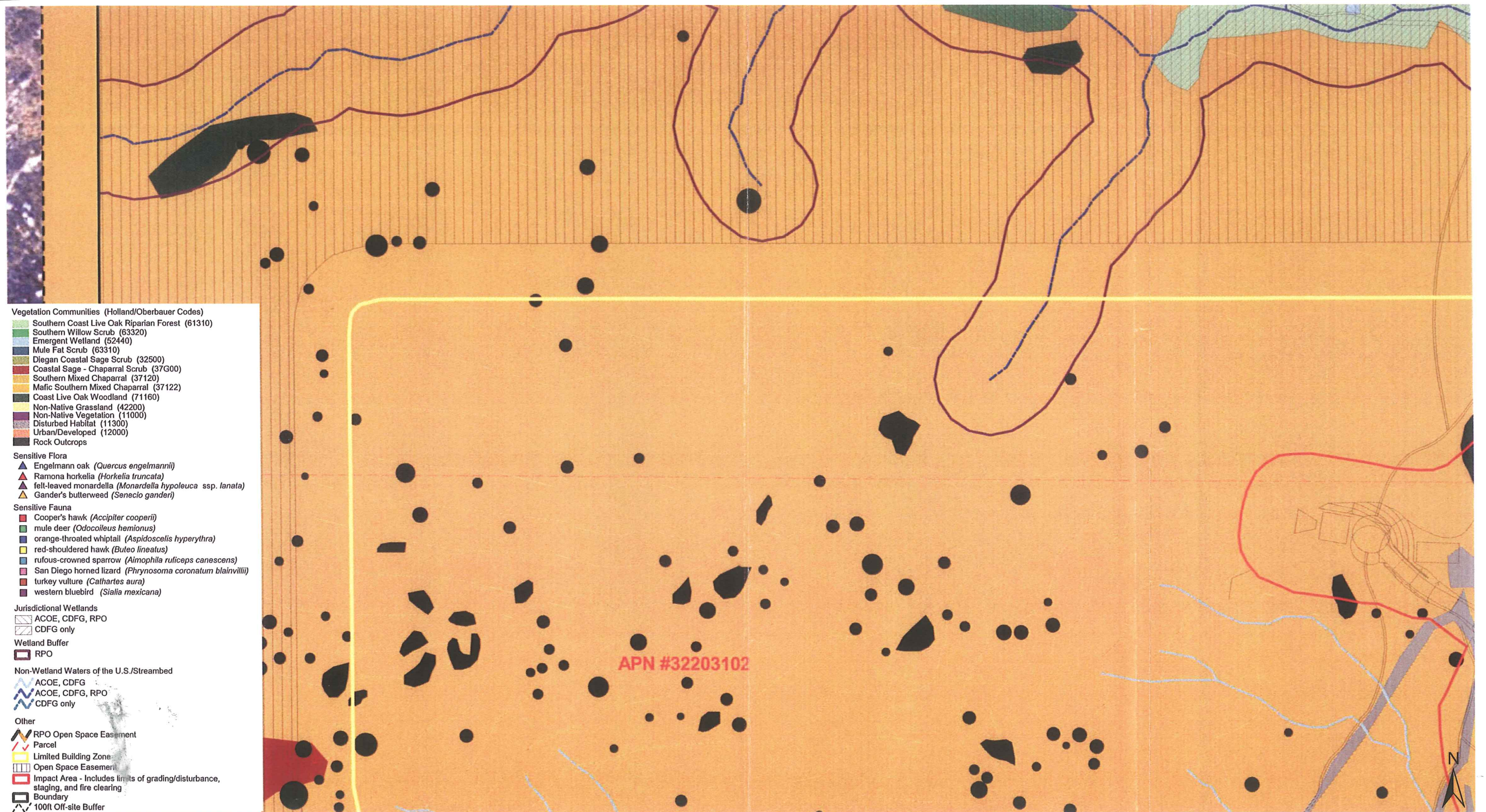
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Salvation Army Divisional Camp and Retreat

Biological Resource Map - Proposed Project

FIGURE
2.2-3



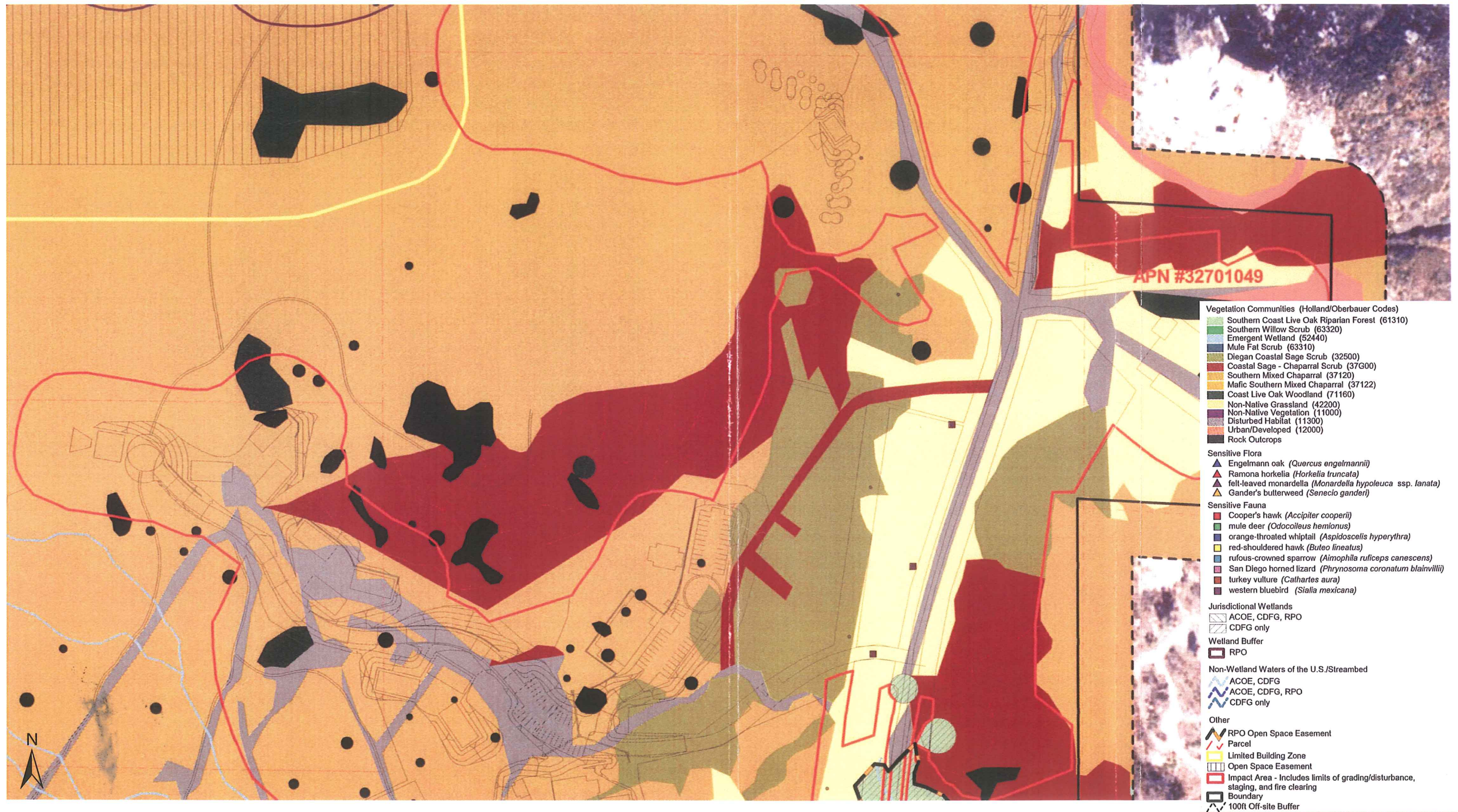
SOURCE: Merkel & Associates, 2006

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Salvation Army Divisional Camp and Retreat Biological Resource Map - Proposed Project

FIGURE
2.2-4



SOURCE: Merkel & Associates, 2006

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Salvation Army Divisional Camp and Retreat

Biological Resource Map - Proposed Project

FIGURE
2.2-5



SOURCE: Merkel & Associates, 2006

1/4/10



Salvation Army Divisional Camp and Retreat

Biological Resource Map - Proposed Project

FIGURE
2.2-6



SOURCE: Merkel & Associates, 2006

1/4/10

Salvation Army Divisional Camp and Retreat

Biological Resource Map - Proposed Project

FIGURE
2.2-7

- Vegetation Communities (Holland/Oberbauer Codes)**
- Southern Coast Live Oak Riparian Forest (61310)
 - Southern Willow Scrub (63320)
 - Emergent Wetland (52440)
 - Mule Fat Scrub (63310)
 - Diegan Coastal Sage Scrub (32500)
 - Coastal Sage - Chaparral Scrub (37G00)
 - Southern Mixed Chaparral (37120)
 - Mafic Southern Mixed Chaparral (37122)
 - Coast Live Oak Woodland (71160)
 - Non-Native Grassland (42200)
 - Non-Native Vegetation (11000)
 - Disturbed Habitat (11300)
 - Urban/Developed (12000)
 - Rock Outcrops
- Sensitive Flora**
- Engelmann oak (*Quercus engelmannii*)
 - Ramona horkelia (*Horkelia truncata*)
 - felt-leaved monardella (*Monardella hypoleuca* ssp. *lanata*)
 - Gander's butterweed (*Senecio ganderi*)
- Sensitive Fauna**
- Cooper's hawk (*Accipiter cooperii*)
 - mule deer (*Odocoileus hemionus*)
 - orange-throated whiptail (*Aspidoscelis hyperythra*)
 - red-shouldered hawk (*Buteo lineatus*)
 - rufous-crowned sparrow (*Aimophila ruficeps canescens*)
 - San Diego horned lizard (*Phrynosoma coronatum blainvillii*)
 - turkey vulture (*Cathartes aura*)
 - western bluebird (*Sialia mexicana*)
- Jurisdictional Wetlands**
- ACOE, CDFG, RPO
 - CDFG only
- Wetland Buffer**
- RPO
- Non-Wetland Waters of the U.S./Streambed**
- ACOE, CDFG
 - ACOE, CDFG, RPO
 - CDFG only
- Other**
- RPO Open Space Easement
 - Parcel
 - Limited Building Zone
 - Open Space Easement
 - Impact Area - Includes limits of grading/disturbance, staging, and fire clearing
 - Boundary
 - 100ft Off-site Buffer



SOURCE: Merkel & Associates, 2006

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Salvation Army Divisional Camp and Retreat

Biological Resource Map - Proposed Project

FIGURE
2.2-8



SOURCE: Merkel & Associates, 2006

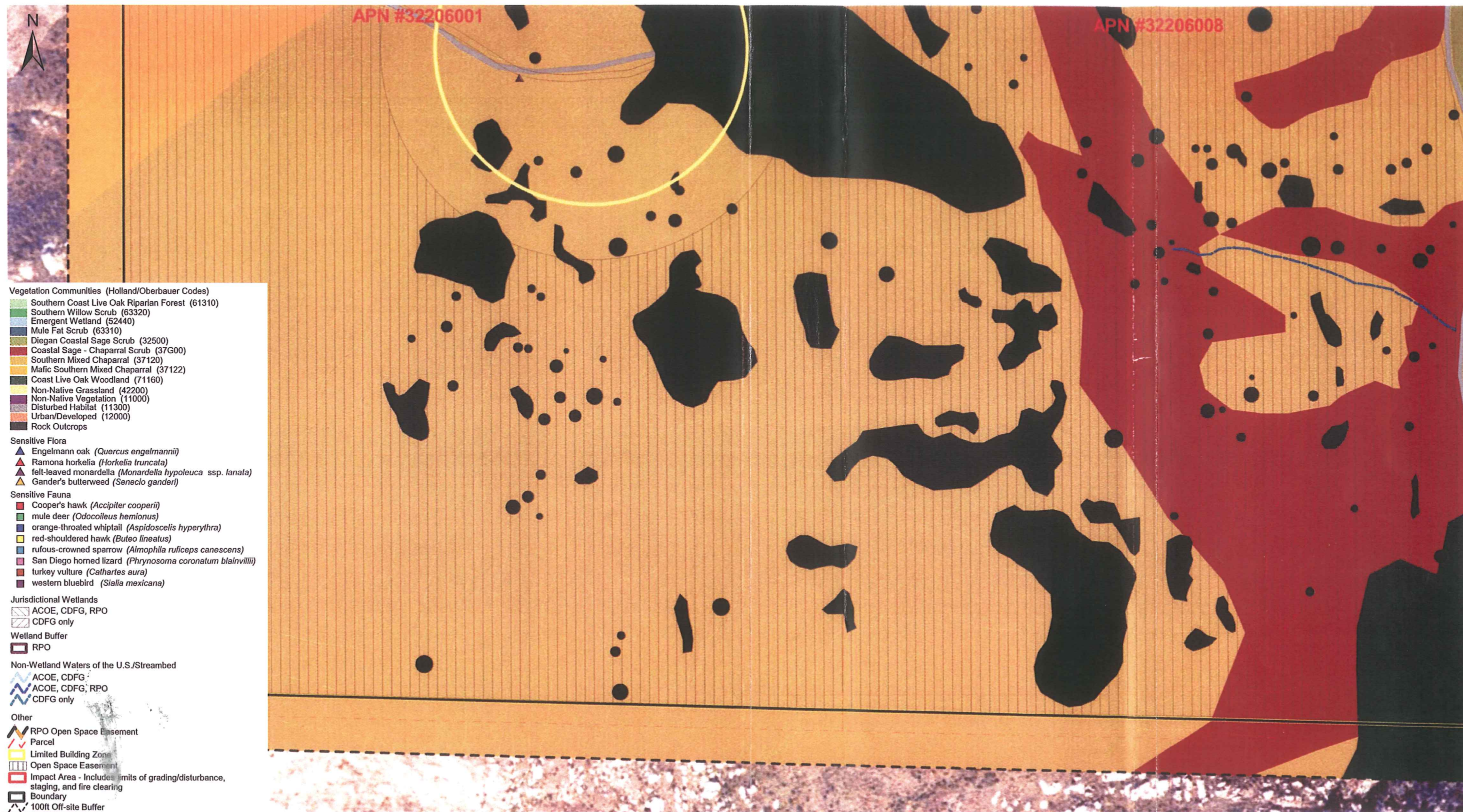
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Salvation Army Divisional Camp and Retreat

Biological Resource Map - Proposed Project

FIGURE
2.2-9



SOURCE: Merkel & Associates, 2006

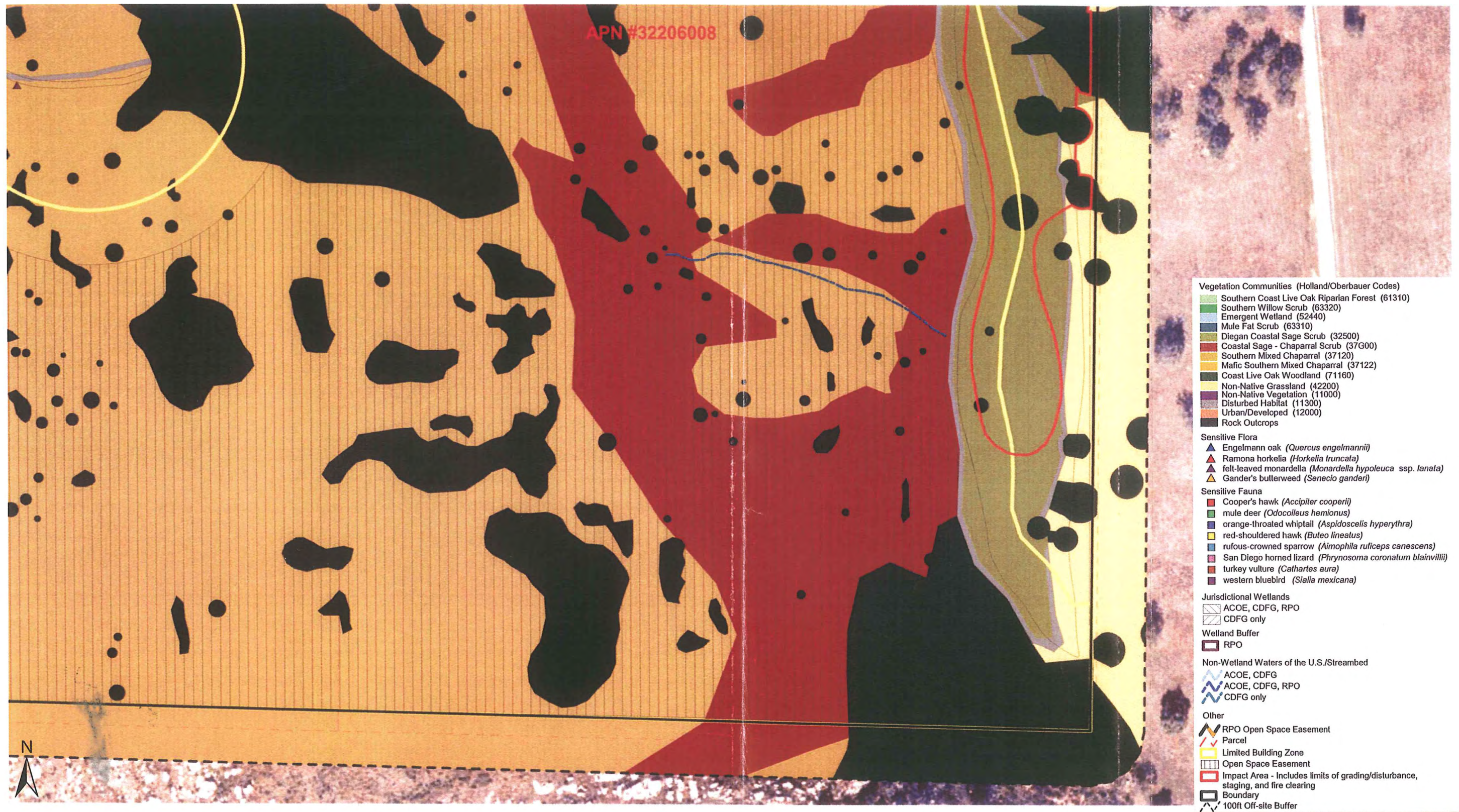
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Salvation Army Divisional Camp and Retreat

Biological Resource Map - Proposed Project

FIGURE
2.2-10



SOURCE: Merkel & Associates, 2006

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Salvation Army Divisional Camp and Retreat

Biological Resource Map - Proposed Project

FIGURE
2.2-11

TABLE 2.2-1
Vegetation Communities and Wetlands Impacts and
Required Mitigation

Vegetation Community	Impacted Area	Required Mitigation
Non-native Woodland	1.64	0.00
Disturbed	9.52	0.00
Urban/Developed	4.73	0.00
Diegan Coastal Sage Scrub	13.12	19.68
Coastal Sage-Chaparral Scrub	9.26	13.89
Southern Mixed Chaparral	37.36	37.36
Non-native Grasslands	12.45 ¹	6.23 ¹
Southern Coast Live Oak Riparian Forest	2.00	4.00 ²
Coast Live Oak Woodland	7.29	14.58 ²
Non-Wetland Waters ACOE/Streambed (CDFG)/	0.17/0.23/	0.34/0.46/
County Jurisdictional Wetlands - 2:1 Mitigation Requirement	0.17	0.34
County Jurisdictional Wetlands - 3:1 Mitigation Requirement ³	0.05	0.15
TOTAL	97.47/97.53/ 97.47	96.17/96.13/ 96.17

Notes: ¹ Includes impacts and mitigation from wetland creation site.

² Includes impacts and mitigation for oak impacts within 25 foot buffer.

³ Existing acreage includes 0.03 acre Emergent Wetland, 0.02 acre Mule Fat Scrub, 0.73 acre Southern Willow Scrub, and 1.46 acres of Southern Coast Live Oak Riparian Woodland. Impacted acreage includes 0.05 acre Southern Coast Live Oak Riparian Forest.

Source: Merkel & Associates, 2003.

Table 2.2-2
BMO Required Mitigation and Open Space Constituents

Habitat Tier	Vegetation Community	Impact	Required Mitigation	Open Space Easement
I	Southern Willow Scrub	0.00	0.00	0.67
I	Emergent Wetland	0.00	0.00	0.01
I	Southern Coast Live Oak Riparian Forest	2.00	4.00 ²	14.59
I	Coast Live Oak Woodland	7.29	14.58 ²	4.0
Oak Woodlands Subtotal		9.29	18.58	19.27
I	Mafic Southern Mixed Chaparral	0.00	0.00	6.46
II	Diegan Coastal Sage Scrub	13.12	19.68	0.05
II	Coastal Sage-Chaparral Scrub	9.26	13.89	28.85
Scrub & Tier I Chaparral Subtotal		22.38	33.57	35.36
III	Southern Mixed Chaparral	37.36	37.36	223.19
III	Non-native Grasslands	12.45 ¹	6.17 ¹	0.23
Tier III Habitats Subtotal		49.81	43.53	223.42
IV	Disturbed	9.52	0.00	0.72
IV	Urban/Developed	4.73	0.00	0.03
Tier IV Habitats Subtotal		14.25	0.00	0.75
TOTAL		95.73	95.68	278.80*

Notes: ¹ Includes impacts and mitigation from wetland creation site.

² Includes impacts and mitigation for oak impacts within 25 foot buffer.

* See Section 4.0 Alternatives for Reduced Project Alternatives I and II habitat mitigation summary.

Source: Merkel & Associates, 2003.